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Vol. I

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1944

No. 21

CAROLENE PRODUCTS COMPANY, CHARLES HAUSER AND WILLIAM H. HARTKE, PETITIONERS,

vs.

THE UNITED STATES OF AMERICA

ON WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE FOURTH CIRCUIT

PETITION FOR CERTIORARI FILED FEBRUARY 7, 1944.

CERTIORARI GRANTED APRIL 3, 1944.

SUPREME COURT OF THE UNITED STATES

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ON WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE FOURTH CIRCUIT

VOL. I.

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Indictment

(Filed October 21, 1942 at Wheeling)

THE UNITED STATES OF AMERICA,

NORTHERN DISTRICT OF WEST VIRGINIA, To-wit:

At a District Court of the United States, for the Northern District of West Virginia, begun and held at the Court House, in the City of Wheeling, on the 20th day of October, 1942.

Present: The Honorable William E. Baker, District Judge for the Northern District of West Virginia.

Among others were the following proceedings, to wit:

UNITED STATES OF AMERICA v. CAROLENE PRODUCTS COMPANY, a corporation, and CHARLES HAUSER and WILLIAM H. HARTKE.	Indictment No. A-5216 Vio. Secs. 61, 62 and 63 Title 21 United States Code.

(Cert. Tr., Rec. on App., pp. 5-14)

The Grand Jurors of the United States of America, impaneled, sworn, and charged, in the District Court of the United States of America, within and for the Northern District of West Virginia aforesaid, at the term aforesaid, of the Court aforesaid, in the year of our Lord nineteen hundred and forty-two, and inquiring within and for said Northern District, upon their oaths present that Caralene Products Company, a corporation organized and existing under and by virtue of the laws of the State of Michigan, and Charles Hauser, and William H. Hartke, at the time

hereinafter mentioned, President and Vice-President, respectively, of said corporation, on, to wit, the eleventh day of April, in the year of our Lord nineteen hundred and forty-one, did unlawfully ship in interstate commerce to the City of Clarksburg, in the County of Harrison, in the State of West Virginia, in the Northern District of West Virginia and within the jurisdiction of this Court, from the City of Warsaw, in the State of Indiana, by rail, over railroads running in and through the States of Indiana, Ohio and West Virginia, then and there, owned and operated by The Winona Railroad Company, a common carrier, The New York, Chicago and St. Louis Railroad Company, a common carrier, and The Baltimore & Ohio Railroad Company, a common carrier, consigned to Horner-Gaylord Company, Clarksburg, West Virginia, a certain consignment, to wit, one thousand cases, each case containing forty-eight 14½ ounce cans, each can containing a certain article of food labeled, in part, "Milnot", which said article of food was filled milk, within the meaning of the Act of Congress approved March 4, 1923 (42 Stat. 1486, 21 U. S. C. 61), entitled, "An Act to prohibit the shipment of filled milk in interstate or foreign commerce," in that said article of food consisted of evaporated and concentrated skimmed milk to which had been added and which had been blended and compounded with a fat or oil other than milk fat, so that the resulting product, to wit, "Milnot", while being shipped in interstate commerce as aforesaid, was in semblance of, evaporated milk, a product prepared wholly from cow's milk; which said shipment in interstate commerce, in manner and form as aforesaid, of the said filled milk, to wit, "Milnot", was, then and there, unlawful and prohibited, and in violation of said Act of Congress; contrary to the form of the statute in such case made and provided and against the peace and dignity of the United States of America.

Indictment.

COUNT II

And the Grand Jurors aforesaid, inquiring as aforesaid, upon their oaths aforesaid, do further present that Carolene Products Company, a corporation organized and existing under and by virtue of the laws of the State of Michigan, and Charles Hauser, and William H. Hartke, at the time hereinafter mentioned, President and Vice-President, respectively, of said corporation, on, to wit, the nineteenth day of April, in the year of our Lord nineteen hundred and forty-one, did unlawfully ship in interstate commerce to the City of Clarksburg, in the County of Harrison, in the State of West Virginia, in the Northern District of West Virginia and within the jurisdiction of this court, from the City of Warsaw, in the State of Indiana, by rail, over railroads running in and through the States of Indiana, Ohio and West Virginia, then and there, owned and operated by The Winona Railroad Company, a common carrier, The New York, Chicago, and St. Louis Railroad Company, a common carrier, and The Baltimore & Ohio Railroad Company, a common carrier, consigned to Horner-Gaylord Company, Clarksburg, West Virginia, a certain consignment, to wit, one thousand cases, each case containing forty-eight 14½ ounce cans, each can containing a certain article of food labeled, in part, "Milnot," which said article of food was filled milk, within the meaning of the Act of Congress approved March 4, 1923 (42 Stat. 1486, 21 U. S. C. 61), entitled "An Act to prohibit the shipment of filled milk in interstate or foreign commerce", in that, said article of food consisted of evaporated and concentrated skimmed milk to which had been added and which had been blended and compounded with a fat or oil other than milk fat, so that the resulting product, to wit, "Milnot", while being shipped in interstate commerce as aforesaid, was in semblance of evaporated milk, a product prepared wholly

from cow's milk; which said shipment in interstate commerce, in manner and form as aforesaid, of the said filled milk, to wit, "Milnot", was, then and there, unlawful and prohibited, and in violation of said Act of Congress; contrary to the form of the statute in such case made and provided and against the peace and dignity of the United States of America.

COUNT III

And the Grand Jurors aforesaid, inquiring as aforesaid, upon their oaths aforesaid, do further present that Carolene Products Company, a corporation organized and existing under and by virtue of the laws of the State of Michigan, and Charles Hauser, and William H. Hartke, at the time hereinafter mentioned, President and Vice-President, respectively, of said corporation, on, to wit, the fifth day of April, in the year of our Lord nineteen hundred and forty-one, did unlawfully ship in interstate commerce to the City of Parkersburg, in the County of Wood, in the State of West Virginia, in the Northern District of West Virginia and within the jurisdiction of this court, from the City of Warsaw, in the State of Indiana, by rail, over railroads running in and through the States of Indiana, Ohio and West Virginia, then and there, owned and operated by The Winona Railroad Company, a common carrier, and The Baltimore & Ohio Railroad Company, a common carrier, consigned to The Peerless Milling Company, Parkersburg, West Virginia, a certain consignment, to wit, four hundred cases, each case containing forty-eight 14½ ounce cans, each can containing a certain article of food labeled, in part, "Carolene", which said article of food was filled milk, within the meaning of the Act of Congress approved March 4, 1923 (42 Stat. 1486, 21 U. S. C. 61), entitled, "An Act to prohibit the shipment of filled milk in interstate or

foreign commerce", in that, said article of food consisted of evaporated and concentrated skimmed milk to which had been added and which had been blended and compounded with a fat or oil other than milk fat, so that the resulting product, to wit, "Carolene", while being shipped in interstate commerce as aforesaid was in semblance of, evaporated milk, a product prepared wholly from cow's milk; which said shipment in interstate commerce, in manner and form as aforesaid, of the said filled milk, to wit, "Carolene", was, then and there, unlawful and prohibited, and in violation of said Act of Congress; contrary to the form of the Statute in such case made and provided and against the peace and dignity of the United States of America.

COUNT IV

And the Grand Jurors aforesaid, inquiring as aforesaid, upon their oaths aforesaid, do further present that Carolene Products Company, a corporation organized and existing under and by virtue of the laws of the State of Michigan, and Charles Hauser, and William H. Hartke, at the time hereinafter mentioned, President and Vice-President, respectively, of said corporation, on, to wit, the fifth day of March, in the year of our Lord nineteen hundred and forty-one, did unlawfully ship in interstate commerce to the City of Clarksburg, in the County of Harrison, in the State of West Virginia, in the Northern District of West Virginia and within the jurisdiction of this court, from the City of Warsaw, in the State of Indiana, by rail, over railroads running in and through the States of Indiana, Ohio, and West Virginia, then and there, owned and operated by The Winona Railroad Company, a common carrier, The New York, Chicago and St. Louis Railroad Company, a common carrier, and the Baltimore & Ohio Railroad Company, a common carrier,

consigned to The Horner-Gaylord Company, Clarksburg, West Virginia, a certain consignment, to wit, eight hundred cases, each case containing forty-eight 14½ ounce cans, each can containing a certain article of food labeled, in part, "Milnut", which said article of food was filled milk, within the meaning of the Act of Congress approved March 4, 1923 (42 Stat. 1486, 21 U. S. C. 61), entitled, "An Act to prohibit the shipment of filled milk in interstate or foreign commerce", in that, said article of food consisted of evaporated and concentrated skimmed milk to which had been added and which had been blended and compounded with a fat or oil other than milk fat, so that the resulting product, to wit, "Milnut", while being shipped in interstate commerce as aforesaid, was in semblance of, evaporated milk, a product prepared wholly from cow's milk, which said shipment in interstate commerce, in manner and form as aforesaid, of the said filled milk, to wit, "Milnut", was, then and there, unlawful and prohibited, and in violation of said Act of Congress; contrary to the form of the statute in such case made and provided and against the peace and dignity of the United States of America.

COUNT V

And the Grand Jurors aforesaid, inquiring as aforesaid, upon their oaths aforesaid, do further present that Carolene Products Company, a corporation organized and existing under and by virtue of the laws of the State of Michigan, and Charles Hauser, and William H. Hartke, at the time hereinafter mentioned, President and Vice-President, respectively, of said corporation, on, to wit, the fifth day of February, in the year of our Lord nineteen hundred and forty-one, did unlawfully ship in interstate commerce to the City of Parkersburg, in the County of Wood, in the State of West Virginia, in the Northern District of

West Virginia and within the jurisdiction of this court, from the City of Warsaw, in the State of Indiana, by rail, over railroads running in and through the States of Indiana, Ohio, and West Virginia, then and there, owned and operated by The Winona Railroad Company, a common carrier, The New York, Chicago and St. Louis Railroad Company, a common carrier, and The Baltimore & Ohio Railroad Company, a common carrier, consigned to Peerless Milling Company, Parkersburg, West Virginia, a certain consignment, to wit, four hundred cases, each case containing forty-eight 14½ ounce cans, each can containing a certain article of food labeled, in part, "Carolene", which said article of food was filled milk, within the meaning of the Act of Congress approved March 4, 1923 (42 Stat. 1486, 21 U. S. C. 61), entitled, "An Act to prohibit the shipment of filled milk in interstate or foreign commerce", in that, said article of food consisted of evaporated and concentrated skimmed milk to which had been added and which had been blended and compounded with a fat or oil other than milk fat, so that the resulting product, to wit, "Carolene", while being shipped in interstate commerce as aforesaid was in semblance of, evaporated milk, a product prepared wholly from cow's milk; which said shipment in interstate commerce, in manner and form as aforesaid, of the said filled milk, to wit, "Carolene", was, then and there, unlawful and prohibited, and in violation of said Act of Congress, contrary to the form of the statute in such case made and provided and against the peace and dignity of the United States of America.

COUNT VI

And the Grand Jurors aforesaid, inquiring as aforesaid, upon their oaths aforesaid, do further present that Carolene Products Company, a corporation organized and ex-

isting under and by virtue of the laws of the State of Michigan, and Charles Hauser, and William H. Hartke, at the time hereinafter mentioned, President and Vice-President, respectively, of said corporation, on, to wit, the fifteenth day of July, in the year of our Lord nineteen hundred and forty-one, did unlawfully ship in interstate commerce to the City of Weston, in the County of Lewis, in the State of West Virginia, in the Northern District of West Virginia and within the jurisdiction of this court, from the City of Warsaw, in the State of Indiana, by rail, over railroads running in and through the States of Indiana, Ohio, and West Virginia, then and there, owned and operated by The Winona Railroad Company, a common carrier, The New York, Chicago and St. Louis Railroad Company, a common carrier, and The Baltimore & Ohio Railroad Company, a common carrier, consigned to Gregg Grocery Company, Weston, West Virginia, a certain consignment, to wit, seven hundred cases, each case containing forty-eight 14½ ounce cans, each can containing a certain article of food labeled, in part, "Carolene", which said article of food was filled milk, within the meaning of the Act of Congress approved March 4, 1923 (42 Stat. 1486, 21 U. S. C. 61), entitled, "An Act to prohibit the shipment of filled milk in interstate or foreign commerce", in that, said article of food consisted of evaporated and concentrated skimmed milk to which had been added and which had been blended and compounded with a fat or oil other than milk fat, so that the resulting product, to wit, "Carolene", while being shipped in interstate commerce as aforesaid was in semblance of, evaporated milk, a product prepared wholly from cow's milk; which said shipment in interstate commerce, in manner and form as aforesaid, of the said filled milk, to wit, "Carolene", was, then and there, unlawful and prohibited, and in violation of said Act of Congress; contrary to the form of the statute in such case made

and provided and against the peace and dignity of the United States of America.

COUNT VII

And the Grand Jurors aforesaid, inquiring as aforesaid, upon their oaths aforesaid, do further present that Carolene Products Company, a corporation organized and existing under and by virtue of the laws of the State of Michigan, and Charles Hauser, and William H. Hartke, at the time hereinafter mentioned, President and Vice-President, respectively, of said Corporation, on, to wit, the nineteenth day of July, in the year of our Lord nineteen hundred and forty-one, did unlawfully ship in interstate commerce to the City of Morgantown, in the County of Monongalia, in the State of West Virginia, in the Northern District of West Virginia and within the jurisdiction of this court, from the City of Warsaw, in the State of Indiana, by rail, over railroads running in and through the States of Indiana, Ohio, and West Virginia, then and there, owned and operated by The Winona Railroad Company, a common carrier, the Wabash Railway Company, a common carrier, and The Baltimore & Ohio Railroad Company, a common carrier, consigned to Lough-Simpson Grocery Company, Morgantown, West Virginia, a certain consignment, to wit, seven hundred cases, each case containing forty-eight 14½ ounce cans, each can containing a certain article of food labeled, in part, "Carolene", which said article of food was filled milk, within the meaning of the Act of Congress approved March 4, 1923 (42 Stat. 1486, 21 U. S. C. 61), entitled, "An Act to prohibit the shipment of filled milk in interstate or foreign commerce", in that, said article of food consisted of evaporated and concentrated skimmed milk to which had been added and which had been blended and compounded with a fat or oil other than milk fat, so

that the resulting product, to wit, "Carolene", while being shipped in interstate commerce as aforesaid was in semblance of, evaporated milk, a product prepared wholly from cow's milk; which said shipment in interstate commerce, in manner and form as aforesaid, of the said filled milk, to wit, "Carolene", was, then and there, unlawful and prohibited, and in violation of said Act of Congress; contrary to the form of the statute in such case made and provided and against the peace and dignity of the United States of America.

COUNT VIII

And the Grand Jurors aforesaid, inquiring as aforesaid, upon their oaths aforesaid, do further present that Carolene Products Company, a corporation organized and existing under and by virtue of the laws of the State of Michigan, and Charles Hauser, and William H. Hartke, at the time hereinafter mentioned, President and Vice-President, respectively, of said corporation, on, to wit, the seventeenth day of July, in the year of our Lord nineteen hundred and forty-one, did unlawfully ship in interstate commerce to the City of Moundsville, in the County of Marshall, in the State of West Virginia, in the Northern District of West Virginia and within the jurisdiction of this court, from the City of Warsaw, in the State of Indiana, by rail, over railroads running in and through the States of Indiana, Ohio, and West Virginia, then and there, owned and operated by The Winona Railroad Company, a common carrier, the Wabash Railway Company, a common carrier, and The Baltimore & Ohio Railroad Company, a common carrier, consigned to Moundsville Grocery and Produce Company, Moundsville, West Virginia, a certain consignment, to wit, eight hundred cases, each case containing forty-eight 14½ ounce cans, each can containing a certain article of food labeled, in

part, "Carolene", which said article of food was filled milk, within the meaning of the Act of Congress approved March 4, 1923 (42 Stat. 1486, 21 U. S. C. 61), entitled, "An Act to prohibit the shipment of filled milk in interstate or foreign commerce", in that, said article of food consisted of evaporated and concentrated skimmed milk to which had been added and which had been blended and compounded with a fat or oil other than milk fat, so that the resulting product, to wit, "Carolene", while being shipped in interstate commerce as aforesaid, was in semblance of, evaporated milk, a product prepared wholly from cow's milk; which said shipment in interstate commerce, in manner and form as aforesaid, of the said filled milk, to wit, "Carolene", was, then and there, unlawful and prohibited, and in violation of said Act of Congress; contrary to the form of the statute in such case made and provided and against the peace and dignity of the United States of America.

JOE V. GIBSON
United States Attorney

A true Bill:

G. S. QUAY
Foreman

Plea in Abatement

(Filed November 9, 1942)

[SAME TITLE.]

(Cert. Tr., Rec. on App., pp. 16-26)

Now come the above-named individual defendants, Charles Hauser and William H. Hartke and the above-named defendant corporation, Carolene Products Company, and each of them, and by way of plea in abatement to the indictment and prosecution in the above-entitled cause, say or says, as the case may be, that the United States of America shall not take further cognizance of, nor further prosecute for the matters set out in the indictment herein and in support thereof, allege and each of them alleges:

1. The corporate defendant, Carolene Products Company, is a corporation duly organized and existing under the laws of the State of Michigan. The defendant Charles Hauser is a director of said corporation and an officer thereof, to wit, its President. The defendant William H. Hartke is a director of said corporation and an officer thereof, to wit, its Vice-President. The principal place of business of the corporate defendant is located at Litchfield, Illinois. It distributes and sells food products under the distinctive trade names "Carolene" and "Milnot". (These products are sometimes hereinafter referred to as the "corporate defendant's products".) They are identical products except for trade names. They are manufactured in the modern sanitary plants of the Litchfield Creamery Company in Litchfield, Illinois and Warsaw, Indiana. They are sold and transported in interstate commerce. The corporate defendant's business in interstate

commerce was very substantial during the past years. Its business has been built up and developed by long and persistent effort and at great expense. The corporate defendant uses the milk supply of thousands of farmers in southern Illinois and northern Indiana.

2. The corporate defendant's products are each a compound of pure, pasteurized skimmed milk and pure refined cottonseed oil amounting to 6% of the finished product in cottonseed oil, and to which are added pure high-potency fish liver oils, containing vitamins A and D; the compound is evaporated so that the volume is reduced approximately two and one-fourth times solely from the loss of water; and said finished product is hermetically sealed in 14½ ounce cans (13 fluid oz) then sterilized, and each 14½ ounce can contains at least 2000 U. S. P. XI units of vitamin A and at least 400 U. S. P. XI units of vitamin D. The corporate defendant's products contain approximately the following chemical constituents: fats 6%, proteins 7.75%, carbohydrates 10.75%, mineral salts 1.65%, water 73.85%.

3. On March 4, 1923, Congress passed the Filled Milk Act (chap. 262, 42 Stat. 1486, 21 U. S. C. Sec. 61-63), prohibiting the shipment in interstate commerce of "any milk, cream or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried or desiccated, to which has been added or which has been blended or compounded with any fat or oil other than milk fat, so that the resulting product is in imitation or semblance of milk, cream or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried or desiccated . . .". Said Filled Milk Act declared that filled milk is "an adulterated article of food, injurious to the public health, and its sale constitutes a fraud upon the public."

Plea in Abatement.

4. The said Filled Milk Act was predicated upon a finding by Congress that filled milk was injurious to health and its sale resulted in a fraud upon the public. At the time of its enactment, as its legislative history discloses, filled milk was considered dangerous to the public health by some authorities by reason of the fact that it had been stripped of elements essential to the maintenance of health, namely, vitamins A and D, known as fat soluble vitamins and which are contained in milk fat. At the time of the passage of the Filled Milk Act, there was not then known such a product as "Milnot" or "Carolene".

5. Subsequent to the passage of the Filled Milk Act, scientific knowledge with respect to the nutrition in general, and vitamins in particular, advanced considerably. The source of vitamin A and D and methods for isolating such vitamins became known. It therefore became possible to add vitamins A and D to products lacking in vitamins A and D and said vitamins are not only commonly added to foods today but are sold for medicinal purposes.

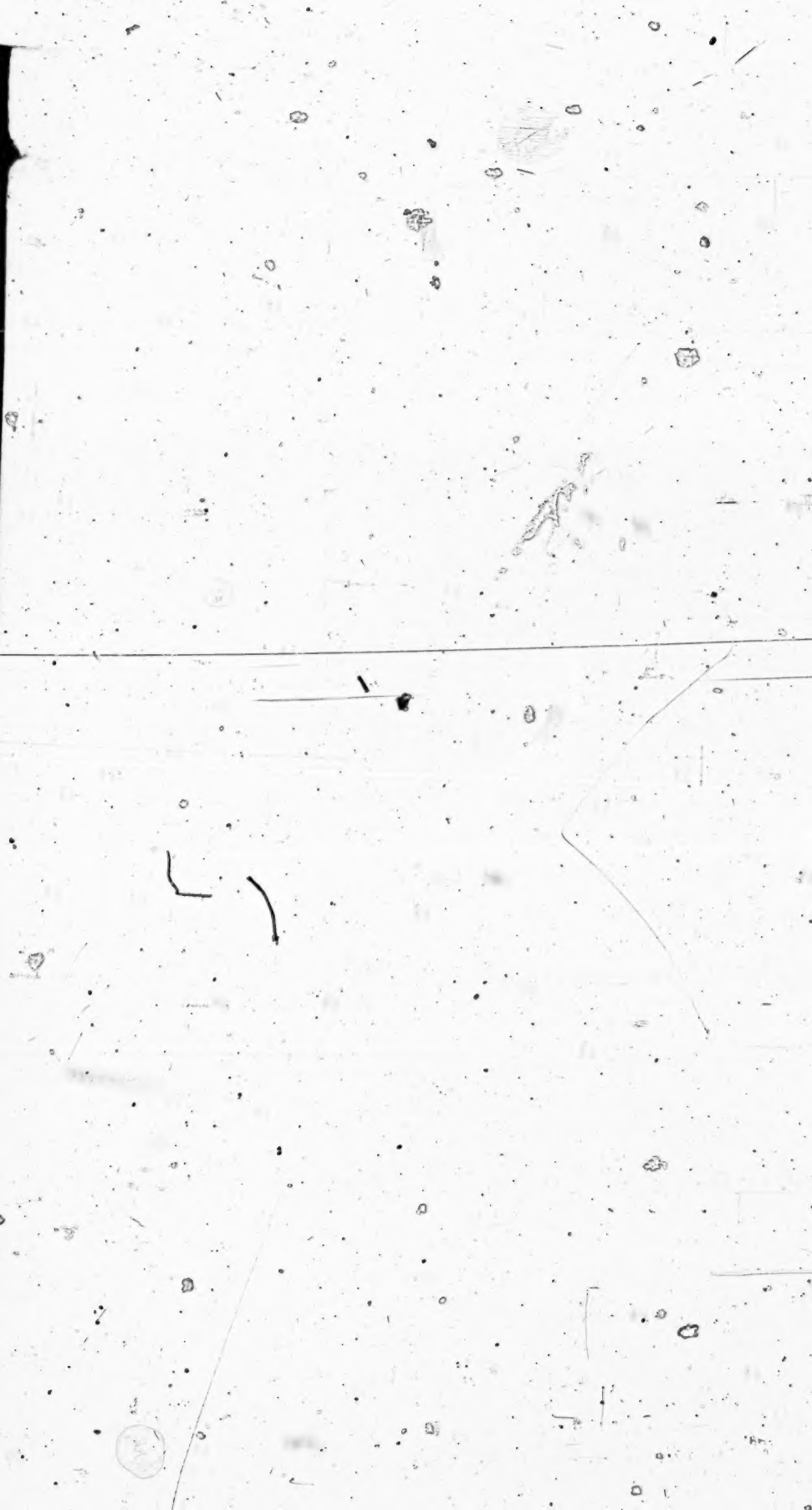
6. Since November, 1937, the corporate defendant has been adding to the products sold by it vitamins A and D. The amount of such vitamins added to each 14½ ounce can of the corporate defendant's products "Milnot" and "Carolene", to-wit, at least 2000 U. S. P. XI units of vitamin A and at least 400 U. S. P. XI units of vitamin D, gives corporate defendant's products a greater and more constant content of vitamins A and D than that contained in a similar quantity of most other foods including whole or evaporated milk.

7. Since the addition of vitamins A and D to the corporate defendant's products, it cannot be said that they are adulterated articles of food, injurious to the public

health, the sale of which constitutes a fraud upon the public. The defendant's products are wholesome, nutritious, non-injurious, unadulterated and beneficial food compounds. Each of their ingredients is uniformly recognized as pure, wholesome and nutritious food, in wide use throughout the world. Skimmed milk is a wholesome, nutritious food, valuable for its content of proteins, carbohydrates (milk sugars), minerals and water soluble vitamins. Refined cottonseed oil is a pure, wholesome, nutritious and beneficial food suitable for human consumption, which has been for many years in general use in large quantities throughout the United States as a food and food shortening and as a cooking oil and in salad dressings, oleomargarine and in the compounding of many lards, such as crisco, spry, vegetole, snow flake and others which are universally sold in grocery stores throughout the United States. The fat soluble vitamins A and D which are added to corporate defendant's products are secured from nationally known reputable laboratories which extract these vitamins from prime natural sources, such as fish livers and prepare them in high potency oils readily available for use in human foods and for medical purposes. There is no other ingredient in the corporate defendant's products except these nutritious and wholesome foods. The ingredients are compounded by special process and thereafter evaporated in the said plant of the Litchfield Creamery Company; by such evaporation, the solids of the mixture are concentrated, as aforesaid, and the said products are put up in hermetically sealed cans by modern and sanitary machinery and sterilized under steam pressure of 240 Fahrenheit; and the said products are rendered absolutely free of all bacteria and so remain thereafter. In the compounding of these ingredients in the manufacture of corporate defendant's products, the food value and purity of the ingredients are not only unlamaged, but on the

contrary, improved. Said products themselves are recognized by leading scientists as wholesome, healthful and nutritious foods.

8. The corporate defendant's products "Carolene" and "Milnot" are unique food compounds manufactured and compounded from the following natural substances in their natural states: (1) skimmed milk, (2) pure refined bland cottonseed oil and (3) pure high potency fish liver oils containing vitamins A and D. In the compounding of these natural products no other substance is added and nothing is done, designed to or which does make the resulting products an imitation or semblance of milk, cream or a skimmed milk in any of their forms. On the contrary, said products are compounded as aforesaid for the sole purpose of creating a unique food compound, wholesome, nutritious, growth-promoting and containing more than adequate uniform vitamin content. In the compounding of said products, the pure skimmed milk, the cottonseed oil and the high potency fish liver oils are left undamaged and undisguised in their natural states, except for the evaporation of water therefrom. The appearance, taste, flavor, color and other characteristics of the compound are the result of the blending, appearance, taste, flavor or color of the natural products used in the manufacture thereof and do not result from any artificial treatment or addition of substances. All persons handling and dealing in said products from the manufacturer to the retailer carefully compound, sell and handle said products *only* in hermetically sealed cans bearing labels which prominently and boldly state the nature of the compound and which prominently and boldly state that said products are "Not Evaporated Milk or Cream". The labels on the containers of corporate defendant's products truthfully disclose the ingredients of "Carolene" and "Milnot", such labels having been submitted to the Federal Food



13 FLUID OZS.-9 4½ OZS. NET WT.

ALL AMERICAN PRODUCT

Carolene

REG. U.S. PAT. OFF.

"IT WHIPS"

NOT EVAPORATED MILK OR CREAM

A high grade wholesome food product especially prepared for use in coffee, baking and for other culinary purposes.

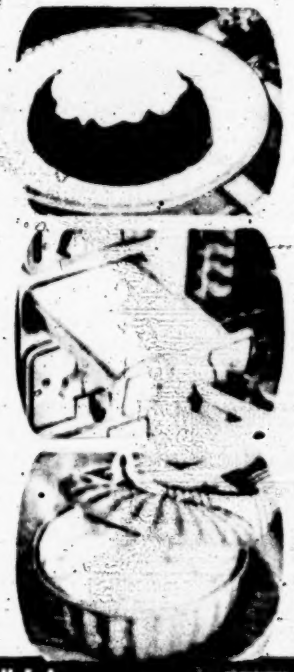
Costs so little, that even the moderate budget can provide frozen desserts and whipped toppings.

Contains not less than 26% solids	
Fat	approximately 6.00%
Protein	" 7.75%
Carbohydrates	" 10.75%
Mineral salts	" 1.65%

Patents Pending

A COMPOUND OF EVAPORATED SKIMMED MILK, COTTONSEED OIL, VITAMINS A & D in Fish Liver Oil

Contains not less than
2000 U.S.P. UNITS VITAMIN A
and 400 U.S.P. UNITS VITAMIN D



For better flavor and more inviting appearance serve Whipped Carolene with all desserts.

Whipped Carolene in your favorite recipes or added to prepared mixes, makes smooth frozen desserts. Chill thoroughly before whipping.

Use Carolene diluted with an equal amount of water as a healthful appetizing ingredient in all cooking and baking.

MANUFACTURED FOR CAROLENE PRODUCTS CO. LITCHFIELD, ILLINOIS, U.S.A.

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13 FLUID OZS. 14½ OZS. NET WT.

ALL AMERICAN PRODUCT

MILNOT

REG. U.S. PAT. OFF.

"IT WHIPS"

NOT EVAPORATED MILK OR CREAM

A COMPOUND OF EVAPORATED SKIMMED MILK, COTTONSEED OIL, VITAMINS A & D in Fish Liver Oil

Contains not less than
2000 U.S.P. UNITS VITAMIN A
and 400 U.S.P. UNITS VITAMIN D

For better flavor and more inviting appearance serve Whipped Milnot with all desserts.

Whipped Milnot in your favorite recipes or added to prepared mixes, makes smooth frozen desserts. Chill thoroughly before whipping.

Use Milnot diluted with an equal amount of water, as a healthful appetizing ingredient in all cooking and baking.

MANUFACTURED FOR CAROLENE PRODUCTS CO. LITCHFIELD, ILLINOIS, U.S.A.

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Plea in Abatement.

9. There is no detriment to the public health from the manufacture or sale of corporate defendant's products. There is at present no rational basis or foundation for any legislation prohibiting the manufacture, possession or sale of said products. Any rational basis for the Filled Milk Act which may have existed at the time of its enactment no longer exists as to these products.

10. The legislative declaration that filled milk is "an adulterated article of food, injurious to the public health, and its sale constitutes a fraud upon the public" cannot be accepted as conclusive and irrebuttable. The facts upon which the defendants depend in proving the inapplicability of the Filled Milk Act and in attacking the constitutionality of the Filled Milk Act must be made the subject of judicial inquiry where such facts are beyond the sphere of judicial notice.

11. By reason of the foregoing facts, the Filled Milk Act, under which the indictment herein was drawn, is wholly inapplicable to the corporate defendant's products, or if held to be applicable to such products, then the Filled Milk Act, under which the indictment herein was drawn, is unconstitutional and void in that (a) it is predicated upon a particular state of facts which existed at the time of its enactment, which facts have since ceased to exist; (b) it exceeds the power granted to Congress to regulate commerce by Article 1, Section 8 of the Constitution of the United States; (c) it deprives the defendants of their property and liberty without due process of law, in violation of the Fifth Amendment of the Constitution of the United States; (d) as applied to corporate defendant's products, even if within the prohibited class, it is without support in reason because corporate defendant's products are so different from "filled milk" as contemplated by Congress, as to be without the reason for the prohibition, there not being in existence nor yet discovered or invented in 1923 any such vitamin-fortified

milk compound; and there is not now being manufactured, and there is not now being sold or shipped in interstate or foreign commerce any filled milk, imitation milk, or vitamin-deficient product which might conceivably be mistaken for corporate defendant's products, there is no public deception or fraud in the shipment or sale of these products, and therefore there are no circumstances attendant to the regulation and sale or the shipment of foods in interstate or foreign commerce which might possibly give rise to any administrative difficulty because of the sale of corporate defendant's products; and (e) it is a special enactment subjecting the products of the corporate defendant to rules and requirements different from those prescribed for all other food products by the general laws of the United States.

12. These defendants stand ready to verify by competent proof the aforesaid statements.

WHEREFORE, the defendants respectfully pray that a hearing be held upon the issues raised by this plea, and that after the testimony so taken the court enter an order holding each and every count of the indictment herein to be abated, quashed and held as void and that the United States of America will take no further cognizance of, nor will it further prosecute for the matters set out in the indictment herein.

CAROLENE PRODUCTS COMPANY

By CHARLES HAUSER
President

CHARLES HAUSER
WILLIAM H. HARTKE

HANDLAN, GARDEN & MATTHEWS,
Wheeling, W. Va.

KAUFMAN & CRONAN,
Attorneys for Defendants,
30 Broad Street,
New York, N. Y.

VERIFICATION

State of West Virginia,
County of Ohio—ss.:

Personally appeared before me the undersigned authority, CHARLES HAUSER, to me personally known, who being by me duly sworn, makes affidavit and says: that he is the President of the defendant Carolene Products Company, a corporation, and duly authorized as such to make this affidavit on behalf of the defendant Carolene Products Company in support of the foregoing Plea of the defendants; that he has read the foregoing Plea and knows the contents thereof; that the facts stated therein are true of his own knowledge.

CHARLES HAUSER
CHARLES HAUSER

Taken, sworn to and subscribed before me this 9th day of November, 1942.

JESSIE FLADING
Notary Public of, in and for said County and State

My Commission Expires:
June 17, 1949.

State of West Virginia,
County of Ohio—ss.:

Personally appeared before me the undersigned authority CHARLES HAUSER, to me personally known, who being by me duly sworn, makes affidavit and says: that he is one of the defendants in the within proceeding; that he has read the foregoing Plea and knows the contents

thereof; that the facts stated therein are true of his own knowledge.

CHARLES HAUSER
CHARLES HAUSER

Taken, sworn to and subscribed before me this 9th day of November, 1942.

JESSIE FLADING
Notary Public of, in and for said County and State

My Commission Expires:
June 17, 1949.

State of West Virginia,
County of Ohio—ss.:

Personally appeared before me the undersigned authority WILLIAM H. HARTKE, to me personally known, who being by me duly sworn, makes affidavit and says: that he is one of the defendants in the within proceeding; that he has read the foregoing Plea and knows the contents thereof; that the facts stated therein are true of his own knowledge.

WILLIAM H. HARTKE
WILLIAM H. HARTKE

Taken, sworn to and subscribed before me this 9th day of November, 1942.

JESSIE FLADING
Notary Public of, in and for said County and State

My Commission Expires:
June 17, 1949.

Motion to Quash

(Filed November 9, 1942)

[SAME TITLE.]

(Cert. Tr., Rec. on App., pp. 27-29)

Upon the annexed and incorporated affidavit of Charles Hauser, duly sworn to on the 9th day of November, 1942, and upon all the previous process, pleadings, papers and proceedings had and taken herein, an application is hereby made by the defendants for an order quashing the indictment herein, and each and every count hereof, upon the grounds that:

1. The Act of Congress under which the indictment was drawn, known as (and hereinafter called) the Filled Milk Act (Act of March 4, 1923, 42 Stat. 1486, 21 U. S. C. 61), is unconstitutional and void in that it is predicated upon a particular state of facts which existed at the time of its enactment, which facts have since ceased to exist.

2. The said Filled Milk Act under which the indictment was drawn is unconstitutional and void in that it is arbitrary and unreasonable and exceeds the power granted to Congress to regulate commerce by Article 1, Section 8 of the Constitution of the United States.

The said Filled Milk Act under which the indictment was drawn is unconstitutional and void in that it is arbitrary and unreasonable and deprives the defendants of their property and their liberty without due process

of law, in violation of the Fifth Amendment to the Constitution of the United States.

4. The said Filled Milk Act under which the indictment was drawn is unconstitutional and void in that the statute as applied to the corporate defendant's products, even if within the prohibited class, is without support in reason because corporate defendant's products are so different from "filled milk" as contemplated by Congress as to be without the reason for the prohibition, there not being in existence nor yet discovered or invented in 1923 any such vitamin-fortified milk compounds; and there is not now being manufactured, and there is not now being sold or shipped in interstate or foreign commerce any filled milk, imitation milk, or vitamin deficient product which might conceivably be mistaken for corporate defendant's products, there is no public deception or fraud in the shipment or sale of these products; and therefore there are no circumstances attendant to the regulation and sale or the shipment of foods in interstate or foreign commerce which might possibly give rise to any administrative difficulty because of the sale of corporate defendant's products.

5. The said Filled Milk Act of Congress under which the indictment was drawn, is unconstitutional and void in that it is a special enactment subjecting the products of the corporate defendant to rules and requirements different from those prescribed for all other food products by the general laws of the United States.

6. The indictment charges no offense cognizable by this court.

WHEREFORE, it is respectfully prayed that a hearing be held upon the issues raised by this motion and the

annexed and incorporated affidavit, and that after hearing the testimony the court enter an order quashing the indictment herein and each and every count thereof.

HANDLAN, GARDEN & MATTHEWS,
Wheeling, W. Va.

and

KAUFMAN & CRONAN,
30 Broad Street,
Borough of Manhattan,
City of New York.

Attorneys for Defendants.

Affidavit of Charles Hauser, Read in Support of Motion to Quash.

[SAME TITLE.]

(Cert. Tr., Rec. on App., pp. 30-39)

State of West Virginia,
County of Ohio—ss.:

This day personally appeared before me, the undersigned authority, Charles Hauser, who, after being by me duly sworn, deposes and says:

I am the President of the defendant Carolene Products Company and make this affidavit in support of an application by the above-named defendants to quash each and every count of the indictment herein, on the grounds stated in the annexed notice of motion.

Affidavit of Charles Hansen

The corporate defendant, Carolene Products Company, is a corporation duly organized and existing under the Laws of the State of Michigan. I am a director of said corporation and an officer thereof, to wit, its President. The defendant William H. Hartke is a director of said corporation and an officer thereof, to wit, its Vice-President. The principal place of business of the corporate defendant is located at Litchfield, Illinois. It distributes and sells food products under the distinctive trade names "Carolene" and "Milnot". (These products are sometimes hereinafter referred to as the "corporate defendant's products".) They are identical products except for trade names. They are manufactured in the modern sanitary plants of the Litchfield Creamery Company in Litchfield, Illinois and Warsaw, Indiana. They are sold and transported in interstate commerce. The corporate defendant's business in interstate commerce was very substantial during the past years. Its business has been built up and developed by long and persistent effort and at great expense. The corporate defendant uses the milk supply of thousands of farmers in southern Illinois and northern Indiana.

The corporate defendant's products are each a compound of pure, pasteurized skimmed milk and pure refined cottonseed oil amounting to 6% of the finished product in cottonseed oil, and to which are added pure high potency fish liver oils, containing vitamins A and D; the compound is evaporated so that the volume is reduced approximately two and one-fourth times solely from the loss of water; and said finished product is hermetically sealed in 14½ ounce cans (13 fluid oz.) then sterilized, and each 14½ ounce can contains at least 2000 U. S. P. XI units of vitamin A and at least 400 U. S. P. XI units of vitamin D. The corporate defendant's products contain approximately the following chemical constituents:

fats 6%; proteins 7.75%, carbohydrates 10.75%, mineral salts 1.65%, water 73.85%.

On March 4, 1923, Congress passed the Filled Milk Act (chap. 262, 42 Stat. 1486, 21 U. S. C., Sec. 61-63), prohibiting the shipment in interstate commerce of "any milk, cream or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried or desiccated, to which has been added or which has been blended or compounded with any fat or oil other than milk fat, so that the resulting product is in imitation or semblance of milk, cream or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried or desiccated * * *". Said Filled Milk Act declared that filled milk is "an adulterated article of food, injurious to the public health, and its sale constitutes a fraud upon the public."

The said Filled Milk Act was predicated upon a finding by Congress that filled milk was injurious to health and its sale resulted in a fraud upon the public. At the time of its enactment, as its legislative history discloses, filled milk was considered dangerous to the public health by some authorities by reason of the fact that it had been stripped of elements essential to the maintenance of health, namely, vitamins A and D, known as fat soluble vitamins and which are contained in milk fat. At the time of the passage of the Filled Milk Act, there was not then known such a product as "Milnot" or "Carolene".

Subsequent to the passage of the Filled Milk Act, scientific knowledge with respect to the nutrition in general, and vitamins in particular, advanced considerably. The source of vitamins A and D and methods for isolating such vitamins became known. It therefore became possible to add vitamins A and D to products lacking in vitamins A and D and said vitamins are not only commonly added to foods today but are sold for medicinal purposes.

Affidavit of Charles Hausey.

Since November, 1937, the corporate defendant has been adding to the products sold by it vitamins A and D. The amount of such vitamins added to each 14½ ounce can of the corporate defendant's products "Milnot" and "Carolene", to wit, at least 2000 U. S. P. XI units of vitamin A and at least 400 U. S. P. XI units of vitamin D, gives corporate defendant's products a greater and more constant content of vitamins A and D than that contained in a similar quantity of most other foods including whole or evaporated milk.

Since the addition of vitamins A and D to the corporate defendant's products, it cannot be said that they are adulterated articles of food, injurious to the public health, the sale of which constitutes a fraud upon the public. The defendant's products are wholesome, nutritious, non-injurious, unadulterated and beneficial food compounds. Each of their ingredients is uniformly recognized as pure, wholesome and nutritious food, in wide use throughout the world. Skimmed milk is a wholesome, nutritious food, valuable for its content of proteins, carbohydrates (milk sugars), minerals and water soluble vitamins. Refined cottonseed oil is a pure, wholesome, nutritious and beneficial food suitable for human consumption, which has been for many years in general use in large quantities throughout the United States as a food and food shortening and as a cooking oil and in salad dressings, oleomargarine and in the compounding of many lards, such as crisco, spry, vegetole, snow flake and others which are universally sold in grocery stores throughout the United States. The fat soluble vitamins A and D which are added to corporate defendant's products are secured from nationally known reputable laboratories which extract these vitamins from prime natural sources, such as fish livers and prepare them in high potency oils readily available for use in human foods and for medical purposes. There is no other ingredient in the corporate defendant's

products except these nutritious and wholesome foods. The ingredients are compounded by special process and thereafter evaporated in the said plant of the Litchfield Creamery Company; by such evaporation, the solids of the mixture are concentrated, as aforesaid, and the said products are put up in hermetically sealed cans by modern and sanitary machinery and sterilized under steam pressure of 240° Fahrenheit; and the said products are rendered absolutely free of all bacteria and so remain thereafter. In the compounding of these ingredients in the manufacture of corporate defendant's products, the food value and purity of the ingredients are not only undamaged, but on the contrary, improved. Said products themselves are recognized by leading scientists as wholesome, healthful and nutritious foods.

The corporate defendant's products "Carolene" and "Milnot" are unique food compounds manufactured and compounded from the following natural substances in their natural states: (1) skimmed milk, (2) pure refined bland cottonseed oil and (3) pure high potency fish liver oils containing vitamins A and D. In the compounding of these natural products no other substance is added and nothing is done, designed to or which does make the resulting products an imitation or semblance of milk, cream or a skimmed milk in any of their forms. On the contrary, said products are compounded as aforesaid for the sole purpose of creating a unique food compound, wholesome, nutritious, growth-promoting and containing more than adequate uniform vitamin content. In the compounding of said products, the pure skimmed milk, the cottonseed oil and the high potency fish liver oils are left undamaged and undisguised in their natural states, except for the evaporation of water therefrom. The appearance, taste, flavor, color and other characteristics of the compound are the result of the blending, appearance, taste, flavor or color of the natural products used in

the manufacture thereof and do not result from any artificial treatment or addition of substances. All persons handling and dealing in said products from the manufacturer to the retailer carefully compound, sell and handle said products *only* in hermetically sealed cans bearing labels which prominently and boldly state the nature of the compound and which prominently and boldly state that the said products are "Not Evaporated Milk or Cream". The labels on the containers of corporate defendant's products truthfully disclose the ingredients of "Carolene" and "Milfiot", such labels having been submitted to the Federal Food and Drug Administration for criticisms and suggestions before being used. The uniform labels used on the corporate defendant's products are as follows:

(These labels are identical with the labels made a part of the Plea in Abatement, inserted herein at page 17.)

There is no detriment to the public health from the manufacture or sale of corporate defendant's products. There is at present no rational basis or foundation for any legislation prohibiting the manufacture, possession or sale of said products. Any rational basis for the Filled Milk Act which may have existed at the time of its enactment no longer exists as to these products.

The defendants are advised by their attorneys and verily believe that by reason of the foregoing facts, the Filled Milk Act under which the indictment herein was drawn, is wholly inapplicable to the corporate defendant's products and if held to be applicable to such products, then the said Filled Milk Act under which the indictment herein was drawn, is unconstitutional and void in that (a) it is predicated upon a particular state of facts which existed at the time of its enactment, which facts have since ceased to exist;

(b) It exceeds the power granted to Congress to regu-

late commerce by Article 1, Section 8 of the Constitution of the United States;

(c) It deprives the defendants of their property and liberty without due process of law, in violation of the Fifth Amendment of the Constitution of the United States;

(d) As applied to corporate defendant's products, even if within the prohibited class, it is without support in reason because corporate defendant's products are so different from "filled milk" as contemplated by Congress, as to be without the reason for the prohibition, there not being in existence nor yet discovered or invented in 1923 any such vitamin-fortified milk compound; and there is not now being manufactured, and there is not now being sold or shipped in interstate or foreign commerce any filled milk, imitation milk, or vitamin-deficient product which might conceivably be mistaken for corporate defendant's products, there is no public deception or fraud in the shipment or sale of these products, and therefore there are no circumstances attendant to the regulation and sale or the shipment of foods in interstate or foreign commerce which might possibly give rise to any administrative difficulty because of the sale of corporate defendant's products; and

(e) It is a special enactment subjecting the products of the corporate defendant to rules and requirements different from those prescribed for all other food products by the general laws of the United States.

The legislative declaration that filled milk is "an adulterated article of food, injurious to the public health, and its sale constitutes a fraud upon the public", cannot be accepted as conclusive and in rebuttal. The facts upon which the defendants depend in proving the inapplicability of the Filled Milk Act and in attacking the constitu-

tionality of the Filled Milk Act must be made the subject of judicial inquiry where such facts are beyond the sphere of judicial notice.

WHEREFORE, it is respectfully prayed that a hearing be held upon the issues raised by this affidavit and the motion it supports and that after hearing the testimony, the court enter an order quashing the indictment herein and each and every count thereof.

CHARLES HAUSER.

Taken, sworn to and subscribed before me in my said County this 9th day of November, 1942.

JESSIE FLADING,
Notary Public of, in and for said County and State.

My Commission expires:
June 17, 1949.

Stipulation of Facts.

(Original stipulation filed Feb. 12, 1942 amended by substituting new pages 1 and 2, April 27, 1943. Wm. C. Howard, Clerk.)

[SAME TITLE.]

(Cert. Tr., Rec. on App., pp. 45-49)

It is stipulated and agreed between the United States of America by Joe V. Gibson, United States Attorney, Ezra E. Hamstead, Assistant United States Attorney, and C. Brooks Deveny, Assistant United States Attorney,

on the one part, and Carolene Products Co., a corporation, Charles Hauser and William H. Hartke by Howard Matthews, of counsel, Handlan, Garden and Matthews, and Samuel H. Kaufman, of Kaufman and Cronan, counsel for the defendants, of the other part, that at the times complained of in the indictment, Carolene Products Co., the defendant, was a corporation, duly organized and existing under the laws of the State of Michigan; that Charles Hauser, the defendant, was at said times complained of in the indictment a Director of said corporation and the President of said corporation; that William H. Hartke, the defendant, at the times complained of in said indictment was a Director of said corporation and its Vice President; that at said time or times, the principal place of business of the corporate defendant was located in Litchfield, Illinois; that the Litchfield Creamery Company, in Litchfield, Illinois, and Warsaw, Indiana, at said time or times and place or places, manufactured for the defendant corporation certain products, marketed under the distinctive trade names of "Carolene", and "Milnot"; and that prior to said time, said Litchfield Creamery Company had manufactured for said defendant corporation a product known as "Milnut".

COUNT NUMBER ONE
(59332-E)

That on or about the 11th day of April, 1941, on waybill #63, there was shipped from Warsaw, Indiana, in car WRLX #703, to Hornor-Gaylord Company, Clarksburg, West Virginia, 1000 cases tall Milnot, via The Winona Railroad Company, a common carrier, New York, Chicago and St. Louis Railroad Company, a common carrier, and The Baltimore and Ohio Railroad Company, a common carrier, the freight being prepaid, and that said shipment was received in car WRLX #703, at Clarksburg, West Virginia, on April 15, 1941.

Stipulation of Facts.

COUNT NUMBER TWO
(59332-E)

That on or about the 19th day of April 1941, on waybill #118, there was shipped from Warsaw, Indiana, in car MDT #20250, to Hornor-Gaylord Company, Clarksburg, West Virginia, 1000 cases tall Milnot, via The Winona Railroad Company, a common carrier, New York, Chicago and St. Louis Railroad Company, a common carrier, and The Baltimore and Ohio Railroad Company, a common carrier, the freight being prepaid, and that said shipment was received in car MDT #20250, at Clarksburg, West Virginia, on April 23, 1941.

COUNT NUMBER THREE
(59329-E)

That on or about the 27th day of March, 1941, on waybill #86, there was shipped from Warsaw, Indiana, in car WRLX #701, to Peerless Milling Company, Parkersburg, West Virginia, 400 cases tall Carolene, via The Winona Railroad Company, a common carrier, Wabash Railway Company, a common carrier, and The Baltimore and Ohio Railroad Company, a common carrier, the freight being prepaid, and that said shipment was received in car WRLX #701, at Parkersburg, West Virginia, March 31, 1941.

COUNT NUMBER FOUR
(59331-E)

That on or about the 5th day of March, 1941, on waybill #22, there was shipped from Warsaw, Indiana, in car ART #23825, to Hornor-Gaylord Company, Clarksburg, West Virginia, 800 cases tall Milnut, via The Winona Railroad Company, a common carrier, New York, Chicago and St. Louis Railroad Company, a common carrier, and The Baltimore and Ohio Railroad Company, a common

carrier, the freight being prepaid, and that said shipment was received in car ART #23825, at Clarksburg, West Virginia, on March 11, 1941.

COUNT NUMBER FIVE
(59328-E)

That on or about the 5th day of February, 1941, on waybill #19, there was shipped from Warsaw, Indiana, in car ART #22736, to Peerless Milling Company, Parkersburg, West Virginia, 400 cases Tall Carolene, via The Winona Railroad Company, a common carrier, New York, Chicago and St. Louis Railroad Company, a common carrier, and The Baltimore and Ohio Railroad Company, a common carrier, the freight being prepaid, and that said shipment was received in car ART #22736, at Parkersburg, West Virginia, February 14, 1941.

COUNT NUMBER SIX
(59534-E)

That on or about the 15th of July, 1941, on waybill #161, there was shipped from Warsaw, Indiana, in car WRLX #310, to Gregg Grocery Company, Weston, West Virginia, 700 cases Tall Carolene, via The Winona Railroad Company, a common carrier, New York, Chicago and St. Louis Railroad Company, a common carrier, and The Baltimore and Ohio Railroad Company, a common carrier, the freight being prepaid, and that said shipment was received in car WRLX #810, at Weston, West Virginia, on July 23, 1941.

COUNT NUMBER SEVEN
(59535-E)

That on or about the 19th day of July, 1941, on waybill #204, there was shipped from Warsaw, Indiana, in car WRLX #705, to Lough-Simpson Grocery Company,

Morgantown, West Virginia, 700 cases tall Carolene, via The Winona Railroad Company, a common carrier, The Wabash Railway Company, a common carrier, and The Baltimore and Ohio Railroad Company, a common carrier, the freight being prepaid, and that said shipment was received at Morgantown, West Virginia, on July 23, 1941.

COUNT NUMBER EIGHT
(42456-E)

That on or about the 17th day of July, 1941, on waybill #193, there was shipped from Warsaw, Indiana, in car WRLX #704, to Moundsville Grocery and Produce Company, Moundsville, West Virginia, 800 cases tall Carolene, via The Winona Railroad Company, a common carrier, The Wabash Railway Company, a common carrier, and The Baltimore and Ohio Railroad Company, a common carrier, the freight being prepaid, and that said shipment was received in car WRLX #704, at Moundsville, West Virginia, on July 24, 1941.

All of which is stipulated and agreed and submitted to the above Court.

UNITED STATES OF AMERICA,
By JOE V. GIBSON,
United States Attorney.

KAUFMAN AND CRONAN,

and

HANDLAN, GARDEN AND MATTHEWS,
By LESTER C. HESS,
Of counsel for the defendants.

Opinion of Baker, *D. J.*

[SAME TITLE.]

(Cert. Tr., Rec. on App., pp. 60-74)

The defendants, Carolene Products Company, a corporation, and Charles Hauser and William H. Hartke, individuals, were indicted at the October Term, 1942, at Wheeling, W. Va., for a violation of what is commonly known as the "filled milk act of 1923." (21 U. S. C. 61)

The Carolene Products Company is a Michigan Corporation, whose sole business is the sale of three products, known respectively as "Milnot," "Milnut", and "Carolene." Milnut was, briefly, a product resulting from the mixture of coconut oil, skimmed milk, and fish oils. Milnot was the same product except that cottonseed oil was substituted for coconut oil. Both of these products are sold under the name of "Carolene." Since, for the purpose of this case the distinction between the three products is entirely immaterial, I will refer to the company's product as "Carolene" throughout this opinion.

Carolene is manufactured by the Litchfield Creamery Company, a corporation, operating creameries in Litchfield, Illinois, and Warsaw, Indiana. Throughout this opinion all dates, when material, will be as of the year 1941, unless specifically stated otherwise.

The defendant, Charles Hauser, was President of the Carolene Products Company; was one of the original incorporators thereof, and a director of that company. The defendant, William H. Hartke, was President of the Litchfield Creamery Company and Vice-President of the Carolene Products Company. The main offices of the Carolene Products Company were maintained at the Litchfield Creamery Company's Litchfield plant and the same rooms in that plant served for offices of both the

Carolene Products Company and the Litchfield Creamery Company. Charles Hauser's office was in the Litchfield Creamery Company's plant, from which office he carried on his duties in relation to both companies. This same office was used by Hartke to transact his business in connection with the two companies. In short, the Carolene Products Company was a corporation, which marketed one of the products of the Litchfield Creamery Company.

The indictment in this case, as noted above, is brought under Title 21, Sections 61, 62, and 63, which reads as follows:

> "Section 61. Filled milk; definitions. Whenever used in sections 62 and 63 of this title—
>
> "(a) The term 'person' includes an individual, partnership, corporation, or association;
>
> "(b) The term 'interstate or foreign commerce' means commerce (1) between any State, Territory, or possession, or the District of Columbia, and any place outside thereof; (2) between points within the same State, Territory, or possession, or within the District of Columbia, but through any place outside thereof; or (3) within any Territory or possession, or within the District of Columbia; and
>
> "(c) The term 'filled milk' means any milk, cream, or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried, or desiccated, to which has been added, or which has been blended or compounded with, any fat or oil other than milk fat, so that the resulting product is in imitation or semblance of milk, cream, or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried, or desiccated. This definition shall not include any distinctive proprietary food compound not readily mistaken in taste for

milk or cream or for evaporated, condensed, or powdered milk, or cream where such compound (1) is prepared and designed for feeding infants and young children and customarily used in the order of a physician; (2) is packed in individual cans containing not more than sixteen and one-half ounces and bearing a label in bold type that the content is to be used only for said purpose; (3) is shipped in interstate or foreign commerce exclusively to physicians, wholesale and retail druggists, orphan asylums, child-welfare associations, hospitals, and similar institutions and generally disposed of by them.

"62. Same; manufacture, shipment, or delivery for shipment in interstate or foreign commerce prohibited. It is declared that filled milk, as herein defined, is an adulterated article of food, injurious to the public health, and its sale constitutes a fraud upon the public. It shall be unlawful for any person to manufacture within any Territory or possession, or within the District of Columbia, or to ship or deliver for shipment in interstate or foreign commerce, any filled milk.

"63. Same; penalty for violations of law; acts, omissions, and so forth, of agents. Any person violating any provision of sections 61 and 62 of this title shall upon conviction thereof be subject to a fine of not more than $1,000 or imprisonment of not more than one year, or both. When construing and enforcing the provisions of said sections, the act, omission, or failure of any person acting for or employed by any individual, partnership, corporation, or association, within the scope of his employment or office, shall in every case be deemed the act, omission, or failure, of such in-

dividual, partnership, corporation, or association, as well as of such person."

The indictment is in eight counts, charging eight separate shipments of filled milk from Warsaw, Indiana, to Clarksburg, Parkersburg, Weston, Morgantown, and Moundsville, in the Northern District of West Virginia. All these shipments were made between February and July of the year 1941, and totalled 5,800 cases, of 48 cans to the case.

Many of the pertinent facts were stipulated upon the trial of this case. Such proof as the Government did introduce was not denied by the defendants. Therefore, there is really no dispute as to the facts involved. They are briefly as follows:

The Litchfield Creamery Company would bring into its Warsaw, Indiana, plant, whole milk procured from the farmers in that vicinity. The cream was then separated from this milk. To the skimmed milk thus obtained was added a sufficient quantity of cottonseed oil to replace the butter fat extracted with the cream. There was also added a small quantity of high potency fish-liver oil to introduce vitamins A and D into the product. The entire product was then evaporated to the consistency of that ordinarily found in condensed whole milk. It was then homogenized; that is, it was forced under great pressure through small openings, resulting in the breaking up of the fat globules in the cottonseed oil and distributing the same evenly through the entire body of the resulting mixture, thus insuring that when this product was canned the oil would not rise to the top but would remain suspended through the entire volume of milk. Upon the completion of the evaporation and homogenization, the product was placed in cans, the cans labeled and packed in cases. The cases, in turn, were placed in the warehouse at Warsaw. Thompson, the manager of the Warsaw plant, was originally em-

ployed by Hauser. He received his orders as to bills of lading from Hartke and Hauser.

The Company had salesman calling upon the various wholesale grocers in the country and soliciting and taking orders for "Carolene". These orders were sent into the main office at Litchfield, and the Litchfield Office would then contact the plant at Warsaw, usually by telephone, sometimes by written order, and instruct the Manager of the Warsaw plant to ship a designated number of cases of Carolene to a given purchaser. These cases were shipped by railway freight, the Carolene Products Company being designated as consignor. Payment for the goods was made to the office at Litchfield, checks being banked with a rubber-stamp endorsement of the Carolene Products Company.

This same business was being carried out at the Litchfield plant; however, in this particular case, all shipments were actually made from Warsaw.

In the year 1941, the Warsaw plant sold 440,000 cases, and the Litchfield plant, 1,150,000 cases of Carolene. Approximately half of this total output was shipped in interstate commerce.

The product "Carolene" looked, tasted, and smelled like condensed whole milk and was of practically the same texture and consistency. It was packed in cans of the same size and shape customarily employed by packers of condensed, whole milk.

When the indictment was returned, a demurrer and a plea in abatement were filed thereto by each of the defendants. The Government demurred to the plea in abatement. Both the demurrer and plea in abatement raised the same defense, that was, briefly, that the filled milk act does not apply to Carolene, or, if it does so apply, that as to Carolene the said act is unconstitutional. The demurrer to the indictment was overruled, and the demurrer to the plea in abatement was sustaingd. Since the questions

presented, however, really constituted the only defense by the corporation, I feel my ruling thereon should be briefly reviewed at this time.

The contention of the defendants was that the product "Carolene" was a wholesome, nutritive article of food; that their labels properly branded the article; and that no fraud was perpetrated upon the public by its sale. For this reason they maintained that the filled milk act did not apply to this product. There is no contention by the Government that the defendants' labels violate any Act of Congress or regulation passed thereunder, and the labeling question is completely outside of this case. The other part of the defense; namely, that the product is wholesome and nutritive was argued at great length and with much ability by counsel for the defendants, both in their oral presentation and in their briefs filed with the Court. That argument boils down to about this contention, that about the time the filled milk act was passed, the commercial fortification of food products by the addition of vitamins not naturally present was not known to science. They contend that in 1923 medical science knew very little about vitamins. They further contend that the Congress' purpose in passing the filled milk act in 1923 was to keep the public from using as food a milk product from which the essential vitamins had been removed, and that now, in the light of present knowledge, it is possible to replace these vitamins by the addition of fish oil, and that, therefore, their product "Carolene" is not such a product as was intended by Congress to be prohibited; or that if the Court holds that it is such a product, that then the Act is unconstitutional.

Fortunately for the Court this Statute has been construed in regard to the very product here involved. In the case of *United States v. Carolene Products Company*, 304 U. S. 144, the Court held that the Act was, on its face, constitutional. In a later case, *Carolene Products Com-*

pany v. Wallace, 27 F. Supp. 110, the District Court for the District of Columbia had before it the construction of this Statute as applying to this identical product; that is, "Carolene", to which high potency fish oil had been added. In that case the Court, in its discussion, used the following pertinent language:

> "The issue which plaintiff presents draws in question the legislative judgment and we think the Congressional hearings and reports in evidence, clearly reveal a state of facts which furnishes ample support for the legislative action of which plaintiff complains. Upon the considerations placed before the committees and the Congress, it became a legislative function to regulate, restrict or prohibit articles of food, though wholesome and nutritious in the exercise of its commerce power. Legislative acts, when subjected to judicial scrutiny, must be presumed to rest on a rational basis if such would exist under any conceivable state of facts; and if a practical question be addressed to the law making department it will require a plain case of departure from every public purpose which could reasonably be conceived to justify the intervention of a court: when public evils ensue from individual misfortune or need, the legislature may strike at the evil at its source. If the purpose is legitimate because public, it will not be defeated. *Carmichael v. Southern Coal Co.*, 301 U. S. 495, 518, 57 S. Ct. 868, 81 L. Ed. 1245, 109 A. L. R. 1327."

And further on in the Opinion:

> "It does not follow that because a transaction separately considered is innocuous it may not be included in a prohibition the scope of which is regarded as essential in the legislative judgment to

accomplish a purpose within the admitted power of the Government. Unless it clearly appears that the enactment has no substantial relation to a proper purpose, it cannot be said that the limit of legislative power has been transcended. Judicial opinion of expediency may not be substituted for the will of the legislature. *Purity Extract Co. v. Lynch*, 226 U. S. 192, 33 S. Ct. 44, 57 L. Ed. 184. The case is authority for the proposition that since the opinion is extensively held that a general prohibition of sale of malt liquors whether intoxicating or not is necessary to suppress the sale of intoxicants, in the exercise of its police power a state may include within the prohibition innocent malt beverages.

"The reports of the Congressional committees reveal the considerations placed before the Congress. The report of the House committee indicates that it was found and believed that filled milk had taken the place of thousands of pounds of butter fat, injuring the market of the American farmer, bringing his product into competition with an inferior product produced by oriental and other cheap labor and handled in many instances under shockingly insanitary conditions. These committees reported to Congress that filled milk lends itself to fraudulent marketing practices. Indeed the Senate committee reported that it was of opinion that it is impossible to prevent fraudulent use and sale of the compound on account of the incentive of additional profit. The reports further represented to Congress that filled milk was an inferior product. They made reference to 'Carolene' by specific mention and found that it and other filled milk products were lacking in certain vitamins which are absolutely necessary to promote growth in the human body. Whether as plaintiff contends it has overcome this

condition of inferiority by adding to its products cod liver oil supplying in the 'New Vitamin A Carolene' and the 'New Vitamin A Milnut' the vitamins found to be lacking in the earlier product, need not be determined since we find that other considerations before the Congressional committees were of sufficient public concern to justify the exclusion of filled milk, as defined by Congress, from movement in interstate commerce."

The Opinion is well summed up by Point I of the Syllabus, reading as follows:

"Where statute prohibited the shipment in interstate commerce of skimmed milk compounded with any fat or oil other than milk fat so as to resemble milk or cream, the wholesome and nutritious qualities of a product does not exclude it from the regulated class."

An appeal from this Opinion was taken to the Supreme Court of the United States, which granted a motion to affirm, 307 U. S. 612.

It is true that in the *United States* v. *Carolene* case (304 U. S. 145), Mr. Justice Butler wrote a brief opinion concurring in the result of that decision, but indicating that he felt that the question of the wholesome and nutritive character of the product could properly be introduced as a defense to a prosecution under the filled milk act. Mr. Justice Butler must have felt that the majority opinion of the Court was deciding that such questions could not be raised as a defense, else there would have been no occasion for filing a separate though concurring opinion. The District Court for the District of Columbia obviously took the other view and was affirmed by the latter decision of the Supreme Court. For this reason I was constrained to hold that the defense of wholesome-

ness and high nutritive qualities was not available in a prosecution under this Statute.

The defendants waived a jury and the case was tried by the Court.

One defense urged in the brief for the defendants is that there was no proof on the trial that Carolene "is in imitation or semblance of milk, cream or skimmed milk whether or not condensed, etc." It was stipulated that if called as witnesses the Government Chemists, Bornmann and Kunke would testify that they had analyzed and examined samples taken from each shipment charged in the indictment, and that each were virtually indistinguishable from evaporated milk in taste, color, odor, appearance, and consistency. There was no evidence to the contrary; in fact, counsel for the defendants, during a colloquy with the Court, stated that Carolene looked, tasted, smelled, and had the consistency of ordinary condensed milk. While statements of Counsel may not be evidence in a case, the stipulated testimony of Bornmann and Kunke sustains, beyond a reasonable doubt, the finding that Carolene is in semblance of milk. In addition, there is the testimony of Thompson, the Manager of the Warsaw plant, that Carolene could not be distinguished by the eye from condensed milk.

It should be noted that the Statute uses the subjunctive and bars to interstate commerce the product if it "is in imitation or semblance of milk." Under this Statute it is not necessary to prove a conscious imitation so long as the product is in semblance of milk; that is, so long as it reacts to the human senses as milk would react. I, therefore, find that the evidence proves, beyond a reasonable doubt, Carolene to be in semblance of condensed milk.

With this finding and with the defense set up in the demurrer and plea in abatement overruled, the corporation must be held guilty, since the addition of fat, other than butter fat, to a skimmed milk product, and the in-

terstate shipment thereof, has been admitted; at least, as to the corporation.

This brings us to the question of the guilt of the individual defendants, Charles Hauser and William H. Hartke. In the first place, it is admitted by the Government, at least in its brief, that there is no evidence to show that either of the individual defendants personally made or even had knowledge of the eight specific shipments complained of in this indictment. On the other hand, the evidence conclusively shows that the individual defendants were the active, directing heads of both the Carolene Products Company and its parent corporation, the Litchfield Creamery Company, and that as such directing heads they caused the Carolene Products Company to engage in an extensive shipment of Carolene in interstate commerce. In this connection, it should be borne in mind that the Carolene Products Company had only one business, which was the sale of Carolene. Half of this business consisted of sales which resulted in shipping the product in interstate commerce. Therefore, under my ruling, 50% of the company's business was illegal. We do not here have the case of a corporation engaged in a proper and legal enterprise with an occasional violation of Federal Law resulting therefrom. We have a case in which 50% of the company's business resulted in violations of the filled milk act. No one could read the record in this case and come to any conclusion other than that Mr. Hartke and Mr. Houser knew that the company was shipping this product in interstate commerce practically every business day. We must also bear in mind that intent is not a necessary element of this offense.

The question of the criminal liability of corporate officers for the acts of a corporation has been before the Courts many times. A brief summary of some of the more important decision might be enlightening.

In the case of *United Cigar Whelan Stores Corpora-*

tion, et al. v. United States, 113 F. 2d 340, a manager of a cigar store was held properly convicted of illegal sales of denatured alcohol by store clerks, even though he was not actually present in the store at the time the sales were made. In commenting upon this feature of the case, the Court said, at page 346:

> "Neither does any person present itself why Dehne was not properly found guilty of all sales, rather than those only in which he physically participated. Dehne was manager of the store, in a position of responsibility, the others were merely clerks; the business was carried on under his direction, as agent for the corporate defendant. 'It is not necesary that an aider or abettor be present at the actual commission of the offense or know details thereof.' *Collins v. United States* (8 Cir.), 20 F. 2d 574, 578; *Parisi v. United States* (2 Cir.), 279 F. 253, 255.' *Borgia v. United States*, supra, at page 555 of 78 F. 2d."

In the case of *Wood, et al., v. United States*, 204 F. 55, our own Circuit Court of Appeals for the Fourth Circuit held that an indictment for unlawfully carrying on the business of distillers with intent to defraud the United States, or having a still under their superintendence, is supported by proof that the distillery was owned by a corporation of which defendants were the officers and manager.

In the course of the Opinion, Judge Rose, then on the District Court Bench, but sitting with Judges Goff and Pritchard, on the Circuit Court of Appeals, said, on page 58:

> "A corporation can only act through human agencies. If the persons who actually direct and commit the frauds upon the government are not

> distillers or persons having superintendence of a still, as charged in the counts of the indictment under consideration, no one can ever be in those cases in which the distillery belongs to and is operated by a corporation. Speaking with precise technical accuracy, it may be said that what happened was that the corporation committed these offenses and that the defendants and each of them knowingly, willfully, and actively aided, abetted, and procured their commission."

The same general principle of law was announced by the Fourth Circuit Court of Appeals in the more recent case of *Backun* v. *United States*, 112 F. 2d 635. In this case Backun was convicted of transporting stolen merchandise of value in excess of $5,000 in interstate commerce, knowing it to have been stolen. The evidence showed that Backun in New York sold certain stolen silverware to one, Zuker, who took it with him on a trip through the South and resold it there. The conviction was reversed for failure of proof that the goods stolen did exceed the value of $5,000.00, but Judge Parker, in his Opinion, clearly sets forth that one who makes a profit by furnishing to criminals, either by sale or otherwise, the means of carrying out their undertakings, becomes equally guilty in the transaction.

The criminal liability of corporate officers, for the acts of a corporation, has been frequently before the various State Courts. In *People* v. *Detroit White Lead Works, et al.*, 82 Mich. 471, 46 N. W. 735, the Court, at page 737, said:

> "The officers of the company are jointly responsible for the business. It is not necessary to have conviction that they should have been actually engaged in work upon the premises. The

work is carried on by employes. The directors and officers are the persons primarily responsible, and therefore the proper ones to be prosecuted."

In the case of *Crall, et al. v. Commonwealth*, 49 S. E. 638, (a Virginia case), a corporation and its Vice President were charged with peddling goods without a license. The defendants contended that the corporate officer could not be convicted since he did not actually make any sales. The Court said (p. 640):

> "This statement of the law is too narrow, and, if followed, would in many instances afford immunity to the chief offenders, the officers of the corporation, without whose assistance it would be impossible for the corporation to engage in the prohibited business. A corporation can act alone through its officers and agents, and where the business itself involves a violation of the law the correct rule is that all who participate in it are liable."

Title 18, Section 550, "Whoever directly commits any act constituting an offense defined in any law of the United States, or aids, abets, counsels, commands, induces, or procures its commission, is a principal," makes all aiders and abettors of a crime principals therein. Under this Section an accessory, either at or before the fact, may, at the pleader's option, be charged directly with the commission of the crime, and be convicted by proof that he aided and abetted its commission. *Greenlaw v. U. S.*, 297 F. 45, *Wood v. United States*, 204 U. S. 55, etc., 31 Corpus Juris 740.

The individual defendants say that they should be acquitted because there is no evidence that they made the shipments of "Carolene," or that they had personal knowledge that the precise shipments, alleged in the indictment, into the Northern District of West Virginia,

were to be made or were, in fact, made. As noted above, Hauser was President of Carolene Products Company, and Hartke was Vice President. Both were directors and both maintained their offices in one of the plants in which "Carolene" was manufactured. A corporation can act only through agents. Speaking with precise technical accuracy, it may be said that what happened in each instance alleged in the indictment was that the corporation, Carolene Products Company, committed the specific offense, and that the defendants, Charles Hauser, President, and William H. Hartke, Vice President, willfully and actively aided and abetted the corporation in this regard. There is an abundance of evidence in the record to convince me, beyond a reasonable doubt, that that was precisely what the two individual defendants did in this case; hence, since they are proven by the evidence to have been aiders and abettors, they must, under Title 18, Section 550, be held guilty as principals, and I now so hold them.

As noted above, intent is not a necessary element of this offense, yet, common sense leads us to a query as to just why there is a Carolene Products Company. Hauser and Hartke had the Litchfield Creamery Company. This company was engaged in the manufacture and sale of general dairy products, including evaporated whole milk. It also manufactured this one product, "Carolene", which it, for some reason, did not wish to sell under its own name, and for the sale of that one product organized a separate corporation. There must have been some reason for this, else why the trouble and expense of maintaining two sets of books, two organizations, etc. Often corporations resort to a subsidiary to sell sub-standard goods. We all know that many of our large concerns sell defective products, "seconds", by this means. But here, the defendants contended in their plea, demurrer, and all through the trial, that "Carolene"

is as good and wholesome as condensed milk. There may be a legitimate answer, not in the record, but only one occurs to me, and that is that Hauser and Hartke knew Carolene violated the filled milk act and organized the company to protect the Litchfield Creamery Company from a violation of the law.

It should be borne in mind, in this connection, that I am bound by the Act of Congress in this case. The defendants, in their proffer, made a strong case for the wholesomeness and nutritive value of their product. It is true that under my ruling excluding this evidence the Government had no opportunity to rebut it, nor even to cross-examine defendants' witnesses; nevertheless, I again agree with Judge Letts (see *Carolene Products Company v. Wallace*, 27 F. 110), wherein he found, as a fact, that the plaintiff's products are wholesome. This defense, however, must be presented to Congress and not the Courts. As the Supreme Court of the United States recently said:

> "The government presses upon us strong arguments of policy against the statutory plan, but the entire force of these considerations is directed solely at what the government thinks Congress should have done rather than at what it did. It is said * * * and finally that conditions have changed since the Act was passed in 1863. But the trouble with these arguments is that they are addressed to the wrong forum. Conditions may have changed, but the statute has not."

United States ex rel. Marcus v. Hess, 317 U. S. 537, especially 546.

(Signed) W. E. BAKER,
U. S. District Judge.

September 7, 1943.

Order Overruling Motion for a Directed Verdict in Behalf of the Defendants.

(Filed September 7, 1943)

[SAME TITLE.]

(Cert. Tr., Rec. on App., pp. 75-76)

This 7th day of September, 1943, came again the parties by their respective counsel and the defendants having heretofore on the 5th day of May, 1943, severally and jointly moved the Court to enter a verdict of "not guilty" as to each and all of said defendants and said motion having been argued, briefed and taken under advisement by the Court and the Court having maturely considered the matters of law and fact arising on said motion and being of opinion to doth hereby overrule said motion as to said defendants and each of them, to which action and ruling of the Court, the defendants and each of them respectively except.

And the parties hereto having heretofore expressly agreed to waive a jury and to submit all matters of law and fact to the Court in lieu of a jury, and the said parties having heretofore introduced evidence respectively in support of the issues herein and said parties respectively having rested their case and submitted said questions of law and fact to the Court in lieu of a jury and the respective parties having thereafter argued this case and tendered and filed briefs in support of their respective contentions and the Court now having reached an opinion with respect to said matters of law and fact and having rendered said opinion thereon in writing, said written opinion being hereby ordered filed and now being of opinion to doth find the defendant, Carolene Products Company, a corporation, guilty as charged in the Indict-

ment herein and each count thereof and doth further find the defendant, Charles Hauser guilty as charged in the Indictment herein and each count thereof and doth further find the defendant, William H. Hartke, guilty as charged in the Indictment herein and each count thereof, to which opinions, actions and rulings of the Court, the defendants jointly and severally except, and thereupon the defendants and each of them by their Attorneys requested time within which to file a written motion in arrest of judgment and a written motion for a new trial and such other motions as said defendants are advised are proper in the premises, which motion is by the Court granted and this case is continued until the 9th day of September, 1943, at ten o'clock A. M. to permit said defendants and each of them to file such motions as they deem proper in the premises.

Order.

(Filed September 10, 1943)

[SAME TITLE.]

(Cert. Tr., Rec. on App., pp. 89-91)

This day came again the United States of America, by Joe V. Gibson, its attorney for said district, and came as well the defendant Carolene Products Company, a corporation, by its counsel of record herein, and the defendants Charles Hauser and William H. Hartke, in person, and by their counsel of record herein.

Thereupon, the Court, being now advised of its judgment upon the motion for a new trial, is of opinion to and

doth hereby overrule said motion, to which action the defendants, by counsel, severally excepted.

Thereupon, the Court, being now advised of its judgment upon the motion in arrest of judgment, is of opinion to and doth hereby overrule said motion in arrest of judgment, to which action of the Court the defendants, by counsel, severally excepted.

And the Court having now considered of its judgment upon the finding of guilty heretofore made,

It is Ordered that upon Count No. 1 of the indictment herein the defendant Carolene Products Company, a corporation, be fined One Thousand Dollars ($1,000.00); that upon Count No. 2, said corporation be fined One Thousand Dollars ($1,000.00); that upon Count No. 3 said corporation be fined One Thousand Dollars ($1,000.00); that upon Count No. 4 said corporation be fined One Thousand Dollars ($1,000.00); that upon Count No. 5 said corporation be fined One Thousand Dollars ($1,000.00); that upon Count No. 6 said corporation be fined One Thousand Dollars ($1,000.00); that upon Count No. 7 said corporation be fined One Thousand Dollars ($1,000.00); and that upon Count No. 8 said corporation be fined One Thousand Dollars ($1,000.00), making a total fine of Eight Thousand Dollars ($8,000.00) against said corporation, and that the United States of America do recover said fine, without costs, from said defendant, Carolene Products Company, a corporation.

Thereupon, the Court pronounced judgment upon the defendants Charles Hauser and William H. Hartke as set forth in other orders of this court this day entered, and the United States Marshal took said defendants into his custody.

Thereupon, the defendants, by counsel, severally advised the Court that it was their intention to appeal from the judgments herein, and tendered their notice of appeal

which is now ordered filed, service of said notice of appeal having been accepted by the United States Attorney.

Thereupon, the defendants Charles Hauser and William H. Hartke, by counsel, filed their written motion that they be at this time admitted to bail pending the perfection of and judgment upon said appeal, which motion was resisted by the United States Attorney, argued by counsel, and overruled by the Court, to which action the defendants Charles Hauser and William H. Hartke severally excepted.

Thereupon, said defendants, Charles Hauser and William H. Hartke, by counsel, severally moved the Court that they be temporarily paroled in the custody of Howard D. Matthews, Esq., of counsel for said defendants, pending such time as would permit them to apply to the Circuit Court of Appeals or a Judge thereof for admission to bail, which motion, being considered by the Court, was overruled, and to which action said defendants, by counsel, severally excepted.

Enter: September 10, 1943.

W. E. BAKER,
United States District Judge.

Approved:

JOE V. GIBSON,
United States Attorney.

WM. C. HOWARD,
Clerk.

A true copy Attest.
(Seal)

Order.

(Entered September 10, 1943)

[SAME TITLE.]

(Cert. Tr., Rec. on App., pp. 92-93)

On this 10th day of September, 1943, came the United States Attorney, and the defendant Charles Hauser, appearing in proper person, and by H. D. Matthews, Lester C. Hess, Samuel H. Kaufman and Edward Rohr, his counsel, and:

The defendant having been convicted on the finding of guilty of the offenses charged in the indictment in the above-entitled cause, to wit:

Shipping of filled milk in interstate commerce, and the defendant having been now asked whether he has anything to say why judgment should not be pronounced against him, and no sufficient cause to the contrary being shown or appearing to the Court, It Is by the Court

Ordered and Adjudged that the defendant, having been found guilty of said offenses, is hereby committed to the custody of the Attorney General or his authorized representative for imprisonment for the period of Six (6) Months under Count No. 1, beginning this day; Six (6) Months under Count No. 2, beginning at the expiration of the sentence heretofore imposed under Count No. 1; Six (6) Months under Count No. 3, to run concurrently with the sentence heretofore imposed under Count No. 1 Six (6) Months under Count No. 4, to run concurrently with the sentence heretofore imposed under Count No. 2; that he be fined One Thousand Dollars ($1,000.00), without costs, under Count No. 1; that he be fined One Thousand Dollars ($1,000.00), without costs, under Count No.

2; that he be fined One Thousand Dollars ($1,000.00), without costs, under Count No. 3; and that he be fined One Thousand Dollars ($1,000.00), without costs, under Count No. 4, and that said defendant be further imprisoned until payment of said fine, or until said defendant is otherwise discharged as provided by law.

Said above sentences being in addition to those this day imposed under Counts Nos. 5, 6, 7 and 8, of this indictment, and set forth in a separate order this day entered.

IT IS FURTHER ORDERED that the Clerk deliver a certified copy of this judgment and commitment to the United States Marshal or other qualified officer, and that the same shall serve as the commitment herein.

W. E. BAKER,
United States District Judge.

Order.

(Filed September 10, 1943)

[SAME TITLE.]

(Cert. Tr., Rec. on App., pp. 94-95)

On this 10th day of September, 1943, came the United States Attorney, and the defendant William H. Hartke, appearing in proper person, and by H. D. Matthews, Lester C. Hess, Samuel H. Kaufman and Edward Rohr, his counsel, and,

The defendant having been convicted on the finding of guilty of the offenses charged in the indictment in the above-entitled cause, to wit:

Shipping of filled milk in interstate commerce, and the defendant having been now asked whether he has anything to say why judgment should not be pronounced against him, and no sufficient cause to the contrary being shown or appearing to the Court, It Is by the Court

Ordered and Adjudged that the defendant, having been found guilty of said offenses, is hereby committed to the custody of the Attorney General or his authorized representative for imprisonment for the period of Six (6) Months under Count No. 1, beginning this day; Six (6) Months under Count No. 2, beginning at the expiration of the sentence heretofore imposed under Count No. 1; Six (6) Months under Count No. 3, to run concurrently with the sentence heretofore imposed under Count No. 1; Six (6) Months under Count No. 4, to run concurrently with the sentence heretofore imposed under Count No. 2; that he be fined One Thousand Dollars ($1,000.00), without costs, under Count No. 1; that he be fined One Thousand Dollars ($1,000.00) without costs, under Count No. 2; that he be fined One Thousand Dollars ($1,000.00), without costs, under Count No. 3; and that he be fined One Thousand Dollars ($1,000.00) without costs, under Count No. 4, and that said defendant be further imprisoned until payment of said fine, or until said defendant is otherwise discharged as provided by law.

Said above sentences being in addition to those this day imposed under Counts Nos. 5, 6, 7 and 8, of this indictment, and set forth in a separate order this day entered.

It Is Further Ordered that the Clerk deliver a certified copy of this judgment and commitment to the United States Marshal or other qualified officer, and that the same shall serve as the commitment herein.

W. E. BAKER,
United States District Judge.

Order.

(Filed September 10, 1943.)

[SAME TITLE.]

(Cert. Tr., Rec. on App., pp. 96-97.)

This 10th day of September, 1943, came the United States of America, by Joe V. Gibson, United States Attorney, and came also the defendants, Charles Hauser and William H. Hartke, in person, and by H. D. Matthews, Lester C. Hess, Samuel H. Kaufman and Edward Rohr, their counsel.

Thereupon, the Court having considered of its judgment upon the finding of guilty of said defendants, Charles Hauser and William H. Hartke, as to Counts Nos. 5, 6, 7 and 8, of the indictment herein, to-wit, on September 7, 1943, It Is Ordered,

It appearing to the satisfaction of the Court that the ends of justice and the best interests of the public as well as the defendants, after the expiration of the sentences of confinement heretofore imposed against each of said defendants under Counts Nos. 1, 2, 3 and 4, of the indictment herein, will be subserved by the suspension of the imposition of any further prison sentence at this time and by placing the defendants and each of them upon probation, as provided by the Act of Congress, approved on the 4th day of March, 1925, and the amendments thereto.

It Is Therefore Considered by the Court that the said defendants, Charles Hauser and William H. Hartke, be and they each are hereby placed upon probation under Count No. 5 for the period of Six (6) Months, beginning at the expiration of the sentences imposed under Counts Nos. 2 and 4 herein, and that they be each fined One

Thousand Dollars ($1,000.00), without costs, and said probation not released until said fines be paid; that upon Count No. 6 they and each of them be placed upon probation for the period of Six (6) Months, beginning at the expiration of the probation imposed under Count No. 5, and that they be each fined One Thousand Dollars ($1,000.00), without costs, and said probation not released until said fines be paid; that upon Count No. 7 they and each of them be placed upon probation for the period of Six (6) Months, beginning at the expiration of the probation imposed under Count No. 6, and that they be each fined One Thousand Dollars ($1,000.00), without costs, and said probation not released until said fines be paid; and that upon Count No. 8 they and each of them be placed upon probation for the period of Six (6) Months, beginning at the expiration of the probation imposed under Count No. 7, and that they be each fined One Thousand Dollars ($1,000.00), without costs, and said probation not released until said fines be paid, each of said probations being upon the terms and conditions prescribed by law and prescribed by the Court, as set forth in Probation Forms No. 7.

Enter,

W. E. BAKER,
Judge.

Approved:
JOE V. GIBSON,
United States Attorney.

(Seal)

A true copy Attest.
WM. C. HOWARD,
Clerk.

Testimony.

Government's Witnesses:

William H. Hartke—for Government—Direct.

THEREUPON, the United States of America, to maintain the issues upon its part, introduced evidence as follows:

(Transcript, p. 29*)

By Mr. Gibson:

Q. Is your name William H. Hartke?
A. Yes, sir.
Q. Were you sworn this morning, Mr. Hartke?
A. Yes, sir.
Q. Where do you live?
A. Litchfield, Illinois.
Q. Are you a stockholder in the Litchfield Creamery Company?
A. Yes, sir.
Q. And is that a corporation?
A. Yes, sir.
Q. Organized under the laws of the State of Illinois?
A. Yes, sir.

Mr. Gibson: Mark that Government Exhibit Nos 1.

(A paper was thereupon marked Government Exhibit No. 1 for Identification.)

(Transcript pp. 30-31):

Q. You may state whether or not that's a photostatic copy of the amended charter of the Litchfield Creamery Company.

* Hereinafter, "Transcript" refers to reporter's paging of stenographic Transcript of proceeding at trial.

Mr. Matthews: We stipulate that it is and agree that it is.

Mr. Gibson: We now ask to introduce this, your Honor.

Mr. Matthews: No objection. I thought it had been stipulated.

Mr. Gibson: No.

GOVERNMENT EXHIBIT NO. 1.

(The paper was thereupon marked Government Exhibit No. 1. Admitted.)

Q. Are you a director or an officer of the Litchfield Creamery Company?

A. Yes, sir.

Q. What official position, if any, do you hold?

A. President.

Q. Were you president in the year 1941 of the Litchfield Creamery Company?

A. Yes, sir.

Q. You may state whether or not the Litchfield Creamery Company made a report to the Secretary of State's office of the State of Illinois for the year 1941, at a time when you were president of this corporation.

Mr. Matthews: Just a minute. I don't know the purpose of the question. This is a very extraordinary proceeding in a criminal case, to put a defendant on the stand, in the first place.

Mr. Gibson: He's not testifying about himself.

. . . . . .

(Transcript, p. 31)

Mr. Matthews: . . . Your Honor, I am willing to stipulate—and, from this paper it is evidently true—that in 1941 W. H. Hartke was president, Charles Hauser was

secretary, Melvin Hauser was treasurer, L. W. Cline a director, and August Hartke a director, of the Litchfield Creamery Company, if that is the purpose of the question. I don't see any reason to encumber the record with a report that says just that.

. . . . . .

(Transcript, pp. 32-34)

Thereupon, the stipulation was read, as follows:

I am willing to stipulate—and from this paper it is evidently true—that in 1941 W. H. Hartke was president, Charles Hauser was secretary, Melvin Hauser was treasurer, L. W. Cline a director, and August Hartke a director, of the Litchfield Creamery Company.

Mr. Gibson: We join that stipulation, Your Honor, and withdraw the exhibit.

Q. Mr. Hartke, how long have you been connected with the Litchfield Creamery Company?

A. Since 1920.

Q. How long have you been connected with the Carolene Products Company?

A. Ever since it was originated. I don't remember the exact date.

Q. You helped incorporate it?

A. Yes, sir.

Q. Where are your headquarters?

A. Litchfield, Illinois.

Mr. Matthews: Just a minute. I thought we had stipulated these matters, and if we haven't the proper method of proof would be to put in the proper evidence through someone other than a defendant. These two gentlemen, Mr. Hartke and Mr. Hauser, are indicted as individuals. Their corporation is indicted. I suggest that it is im-

proper to put on an individual defendant and ask general questions about his association with the corporate defendant, because it is impossible to differentiate between this testimony, as to its applicability to the corporation, as separate and distinct from its application to him. I think it is error to question the defendant about matters other than those which we are willing to stipulate.

Mr. Gibson: I can't agree with counsel. I can bring in witnesses and prove, I imagine, by other people everything I can prove by this witness. I can't agree that an officer of a corporation can't testify against the corporation. It might be limited, but surely he cannot say it is improper evidence.

Mr. Matthews: I will have to object to the question.

Mr. Gibson: I will withdraw it.

Mr. Matthews: I move to exclude this evidence so far offered of this witness, insofar as any application it may have to him as an individual defendant is concerned.

Mr. Gibson: We don't object to that.

The Court: All right.

(A paper was thereupon marked Government Exhibit No. 2 for Identification, and handed to counsel for the defendants.)

* * * * * * * * *

(Transcript, p. 34)

Mr. Matthews: I think you may introduce the paper No objection.

GOVERNMENT EXHIBIT No. 2.

(The paper was thereupon marked Government Exhibit No. 2, Admitted.)

* * * * * * * * *

(Transcript, p. 35)

Mr. Matthews: Your Honor, the defendants stipulate that during the year 1941 Charles Hauser was president, W. H. Hartke was vice president, and Martin Hauser was secretary and treasurer, and the three of them were directors, of the Carolene Products Company, a corporation.

Marjorie I. Vollmer—for Government—Direct:

(Transcript, p. 36)

By Mr. Gibson:

Q. Is your name Marjorie I. Vollmer?
A. Yes, sir.
Q. Where do you live?
A. In Warsaw, Indiana.

Q. By whom are you employed?
A. By the Litchfield Creamery Company.
Q. And where are you employed?
A. In the office of the Litchfield Creamery Company.
Q. Where is the office which you mentioned, is it in Warsaw or Litchfield?
A. It is in Warsaw.
Q. What is your occupation? What is your position?
A. Secretary.
Q. To whom?
A. Mr. Thompson.
Q. And what is Mr. Thompson's position?
A. Manager.
Q. Has Mr. Thompson been manager ever since you have been employed by the Litchfield Creamery Company?
A. Yes, sir.

(Transcript, pp. 37-38)

Q. How long have you been employed by the Litchfield Creamery Company?

A. It will be three years this summer.

Q. We have certain bills of lading showing the initials MIV. Do you know of any custom in and around the office of the Litchfield Creamery Company in Warsaw, Indiana, of those initials being signed by anybody, and who that would represent?

A. No one except myself.

Q. In other words, where MIV is signed, that's your initials?

A. Yes, sir.

Q. Does anybody else sign them, other than yourself?

A. Yes, at the present time.

Q. Did they in the year 1941?

A. Yes, sir, I believe there were.

Q. Who else signed your initials to papers, if you know?

A. I don't recollect.

Q. Do you know whether they did or didn't?

A. I signed my initials.

Q. You signed your initials?

A. Yes, sir.

Q. Who else signed it, if you know?

Mr. Matthews: You mean, signed her initials?

Mr. Gibson: Yes, signed her initials.

A. No one except myself.

Q. No one except yourself?

A. No.

Q. Where was the chief office of the Litchfield Creamery Company, at Warsaw?

A. At Litchfield, Illinois.

(Transcript, pp. 38-39)

Q. Was there a plant of the Litchfield Creamery Company at Warsaw?

A. Yes, sir.

Q. Was there a plant of the Litchfield Creamery Company at Litchfield, Illinois?

A. Yes, sir.

Q. Warsaw is in Indiana?

A. Yes, sir.

Q. And Litchfield is in Illinois?

A. Yes, sir.

Q. And where is the chief office of the Carolene Products Company?

A. In Litchfield, Illinois.

Q. Not at the Warsaw plant?

A. No, sir, that's a branch.

Q. Was your office at Warsaw connected with the plant of the Litchfield Creamery Company?

(Transcript, pp. 39-40)

A. Yes, it was.

Q. They were on the same lot and same building, or what was the condition there?

A. It was all in one place.

Q. All in one building?

A. Yes.

Q. The Litchfield Creamery Company, I believe—and you can say whether it is true or not—manufactured certain milk compound that was shipped by the Carolene Products Company, is that right, or otherwise?

A. That's right.

Q. At Warsaw?

A. At Warsaw.

Marjorie I. Vollmer—Direct.

Q. Who manufactured this milk product that was put in cans?

A. Litchfield Creamery Company at Warsaw.

Q. And who shipped it?

A. Litchfield Creamery at Warsaw.

Q. The Litchfield Creamery shipped it?

A. No, the Carolene Products shipped it.

. . . . . .

Q. Who signed up these bills of lading to send this out, you or somebody else?

A. I did.

Q. You did?

A. Yes, sir.

Q. How did you know where to ship it?

A. Orders from Litchfield, Illinois.

Q. Who gave those orders?

. . . . . .

(Transcript, p. 40)

A. Different people.

Q. In other words, you don't know who gave them?

A. No, sir, I don't.

. . . . . .

(Transcript, pp. 40-41)

Q. Who gave orders to you to ship Carolene products?

A. They were given to me by Mr. Thompson.

Q. By whom?

A. Mr. Thompson.

. . . . . .

William Howard Thompson—for Government—Direct:

(Transcript, pp. 41-43):

By Mr. Gibson:

Q. Please state your name.

A. William Howard Thompson.

Q. Where do you live, Mr. Thompson?

A. Warsaw, Indiana.

Q. By whom are you employed?

A. Litchfield Creamery Company.

Q. How long have you been employed by the Litchfield Creamery Company?

A. Five years.

Q. That would make your employment starting on what date?

A. Well, to be more exact, March 1, 1938.

Q. Who was your predecessor?

A. James J. Harris.

Q. You may tell the Court by whom you were employed in the year 1941.

A. Litchfield Creamery Company.

Q. In other words, your employment has been continuous?

A. Yes, sir.

Q. Since you entered the service of the Litchfield Creamery Company on March 1, 1937, to this date?

A. 1938.

Mr. Gibson: 1938, yes.

Q. Mr. Thompson, what were your duties, what was your employment?

A. Manager of the Litchfield Creamery branch at Warsaw.

Q. From what I understand from this young lady in

the other evidence, there was a branch plant of the Litchfield Creamery Company at Warsaw, Indiana.

A. Yes, sir.

Q. And an office in connection therewith.

A. Yes, sir.

Q. What was the business of the Litchfield Creamery Company at Warsaw? What did they do?

A. Milk manufacturers, manufacture of milk products.

Q. What do you mean by manufacturing milk products? What do you start with, what do you do first?

A. We buy whole milk.

Q. From farmers?

A. Yes, sir.

Q. All right, now, so we will understand this, because we are not milk people, tell the Court just exactly what you did in 1941 to make this product. What process did it go through in your plant?

A. The milk is received as whole milk from farmers, and is run through separators, separate the butter-fat. Butter-fat is churned into butter or sold as fresh cream. Skimmed milk is compounded with oils, vegetable oils and fish-liver oils, evaporated, canned and sterilized, labeled for shipment.

Q. Now, that was what you were doing in 1941?

A. Yes.

Q. The butter-fat, you say, was removed?

A. Yes.

Q. By separation?

A. Yes.

Q. Then cotton seed oil and fish-liver oil was put in?

A. Yes.

William Howard Thompson—Direct.

(Transcript, pp. 43-44)

Q. There was something said sometime by counsel about homogenizing.

A. Homogenizing.

(Transcript, pp. 44-45)

Q. What does that word mean?

A. Homogenizing is the putting under high pressure of various substances that's used in evaporated milk, and in Milnot and Carolene it is used for many other purposes to break down fat globules, and under this high pressure it is released into a low pressure, and, by so doing, the globules which are relatively large are broken down in size so that they do not separate readily from the body of the product.

Q. That was done at what stage of the process you went through?

A. Immediately after it leaves the evaporating pans.

Q. That's after you evaporated it, then?

A. Yes, sir.

Q. Then after this homogenizing process is gone through, it goes from there to the cans, is that right?

A. Well, at the storage tanks, the storage tanks feed it to the cans by machinery.

Q. You have explained the scientific purpose of this process. Is it or is it not true that the effect of this process is to make equal consistency, as far as fat content is concerned, in the top or bottom of a can of milk?

A. Substantially so, yes.

Q. And you use this process, whether it is cow's milk or cotton-seed oil—I mean butter-fat or cotton-seed oil?

A. Yes.

Q. The same thing is used?

A. Yes.

William Howard Thompson—Direct.

Q. What would be the result, after blending of the cotton-seed oil, the fish-liver oil and the skimmed milk, if you didn't homogenize it?

A. The same thing would happen if you didn't homogenize evaporated milk.

Q. Not "the same" but what would happen?

A. The fat would separate.

Q. And where would the fat go?

A. To the top of the can.

Q. In other words, without the homogenizing process, if you got a new can of milk you would have a layer of oil on the top of the can and skimmed milk on the bottom?

A. I think that's true.

. . . . . .

(Transcript, p. 46)

Q. Describe the color, texture and appearance, of this milk product, skimmed milk mixed with cotton-seed oil and fish-liver oil? Describe that so the Court and the rest of us can understand it. What is its appearance?

A. Well, it's a white fluid, as milk is. In other words, the skimmed milk is—the addition of the oil doesn't change the appearance of the evaporated milk. Skimmed milk doesn't change it from what it would appear to the eye if it were just evaporated skimmed milk that I can see.

Q. What is the appearance of the genuine evaporated milk after it goes through the same process?

A. I don't think the eye would detect the difference.

Q. What would you say as to whether or not cotton-seed oil, before it is homogenized, has the same appearance as cream?

. . . . . .

(Transcript, p. 47)

A. It doesn't appear the same.

Q. What would you say as to whether cotton-seed oil, before it is homogenized, has the same appearance as butter-fat, or otherwise?

A. Butter-fat in what form?

Q. The way you take it out of the skimmed milk.

A. Well, that's cream, isn't it?

Mr. Gibson: I suppose it is.

A. They don't appear the same.

Q. Explain the difference.

A. Well, one's oil and the other's cream, that's about all I can say, Your Honor.

. . . . . .

(Transcript, pp. 47-48)

Q. What about the color?

A. Color?

Q. Yes.

A. Well, the color of cream is usually golden yellow. The color of coconut oil is—it isn't a clear liquid. It has a slight amber color to it, or something, I don't know. I'm not very good on my colors.

Q. All right, how about cotton-seed oil?

A. Compared with what?

Q. I asked you about cotton-seed oil as compared with cream. What is the color of cotton-seed oil?

A. Well, I said it's a more or less of an amber liquid. It isn't clear, but it's almost—you can see through a small distance through it, see objects.

. . . . . .

(Transcript, pp. 48-50)

Q. Mr. Thompson, where were you raised?

A. Utah.

Q. Did you ever go to school?

A. Yes, sir.

Q. College?

A. Yes, sir.

Q. What college?

A. Utah State Agricultural College.

Q. Did you graduate?

A. Yes, sir.

Q. When was that?

A. I'm not sure, I think it was 1936.

Q. And what was your major subject—from what school did you graduate?

A. School of Agriculture.

Q. Did you give any attention to chemistry?

A. I have had some chemistry.

Q. In your regular course?

A. Yes, sir.

Q. What has been your occupation since you left school in 1927?

A. Been a dairy employee, employed in the creamery business.

Q. Employed in the creamery business?

A. Evaporated business.

Q. Up to 1938, and then with this manufacturing business?

A. Yes, sir.

Q. Now, Mr. Thompson, have you had experience in handling milk, cream, butter, butterfat, other milk products in its pure state, natural state, refined state, as compared with products prepared with skimmed milk, cotton-seed oil, coconut oil, fish-liver oil, and other products? Have you had experience with those?

A. Well, I've been employed as a creamery employee since graduation.

Q. In what capacity as a creamery employee, though?

A. As a foreman.

Q. In other words, you have been the manager of this company's business since 1938?

A. Yes.

Q. At Warsaw?

A. Yes.

Q. Now, can you tell me the difference in appearance between cotton-seed oil and butter-fat?

. . . . . .

(Transcript, pp. 50-51)

A. Cream is—I assume you refer to cream when you say "butter-fat" or do you refer to butter? What do you mean when you say butter-fat?

Mr. Gibson: I asked you about cream and you said butter-fat; I asked you about butter-fat and you said cream.

The Witness: Well, tell me definitely what you want now. You want butter-fat?

Mr. Gibson: Butter-fat. Let's take it that way first because you said butter-fat was cream.

A. I have only seen butter-fat free of milk solids and water—never have, really.

Q. Did you ever see any made at your plant that you have operated for the last seven years?

A. We call it butter-fat. We speak of butter-fat in the milk or cream. However, when you separate that clear from the other without any other constituent being present, it is almost——

Q. What is the difference between your cream and cotton-seed oil?

. . . . . .

(Transcript, p. 51)

A. Well, cream is a golden yellowish liquid, and cotton-seed oil is a liquid also, but it's an amber color.

Q. Which is the darker, the cream or the cotton-seed oil?

A. I don't know.

. . . . . .

Q. But after they are homogenized you can't tell the difference, is that it?

. . . . . .

(Transcript, p. 52)

A. Well, I have never seen the oil without being mixed with anything else, homogenized. I don't know how it would appear.

Mr. Gibson: What?

The Court: He has never seen the oil homogenized unless it is mixed with some other liquid.

Q. Did you ever manufacture any evaporated milk?

A. Yes.

Q. And you evaporate that down to a certain percentage, and can it yourself, is that right?

A. Yes.

Q. Now, you have evaporated, also, I believe, skimmed milk, added cotton-seed oil, fish-liver oil, evaporated that down, is that right?

A. Yes.

Q. What's the difference in the appearance of those articles after that homogenization is done?

. . . . . .

A. I think I answered once that I didn't think the eye could tell the difference. I don't think I could.

. . . . . .

William Howard Thompson—Direct.

(Transcript, p. 53)

Q. Mr. Thompson, who employed you when you went to work for the Litchfield Creamery Company?

A. Mr. Hauser.

Q. Charles Hauser?

A. Yes, sir.

Q. In the year 1941, since you have been there, you mix butter, I believe?

The Witness: Beg your pardon?

Q. You make butter at that factory?

A. Yes.

. . . . . .

Q. Tell the Court how much of this milk compound of skimmed milk, coconut or cotton-seed oil, fish-liver oil, was packed by the Litchfield Creamery Company at the Warsaw plant per day during the year 1941?

. . . . . .

(Transcript, p. 54)

A. It would vary between one thousand and—one thousand cases and twelve or fifteen hundred.

Q. How many cans in a case?

A. Forty-eight.

Q. And how many ounces in a can?

A. Fourteen and a half.

Q. Who operated that creamery there?

A. What do you mean?

Q. Well, who made the batter, who mixed this oil, and who did that? I mean, what company? Who is that done for, Litchfield or Carolene, which one, if you know?

A. Litchfield Creamery operates the plant.

Q. What became of the milk compound, namely, the

skimmed milk, cotton-seed oil or coconut oil and the fish-liver oil, what became of it after you ran it through this homogenizing process and then through the cooler and then into the can?

A. Went to the warehouses.

Q. Was there a label put on it?

A. Yes.

Q. Whose labels were put on it?

A. Carolene Products.

(Transcript, p. 55)

Q. When you get this milk product that is packed in cans—14½ ounce cans, I believe you said?

A. Yes, sir.

Q. And labeled for the Carolene Products Company?

A. Yes, sir.

Q. Then what is done with it? You say it goes to a warehouse?

A. Yes.

(Transcript, pp. 55-56)

Q. Well, you got all of it out in the warehouse for this last seven years, or do you dispose of it in some way?

A. Well, it's sold and shipped.

Q. Is it sold from your office?

A. No.

Q. Is it shipped from your plant?

A. Yes.

Q. Is it shipped from your plant to Litchfield or to a consumer, or wholesaler?

A. It's shipped to a wholesaler.

Q. On whose orders do you ship that?

A. The office at Litchfield, Illinois.

Q. The office at Litchfield?

A. Yes, sir.

Q. You mean the Litchfield Creamery Company's office or the Carolene Products office?

A. I don't know.

Q. Well, how do you get your notice to ship?

A. By phone usually.

Q. Do you get them all by phone?

A. No, sir.

Q. How else do you get them?

A. By mail.

Q. The ones that come by mail, are they from the Carolene Products or Litchfield Creamery Company?

. . . . . .

(Transcript, p. 57)

A. It comes from the same office. There is no designation on it. It's in a Litchfield Creamery envelope.

Q. In a Litchfield envelope?

A. Yes, sir.

Q. Who signs those orders?

A. They are not signed.

Q. Not even by the Litchfield Creamery Company or the Carolene Products Company, is that right?

A. No, sir.

. . . . . .

Q. Not signed by any individual?

A. Not the orders that I receive.

Q. When you are called on the telephone, you receive some by telephone?

A. Yes, sir.

Q. How do you receive them? From whom do they come?

. . . . . .

(Transcript, p. 58)

A. They come from either Melvin Hauser or Victor Hauser.

Q. Who is Melvin Hauser?

A. He is an employee of the Litchfield Creamery Company, to the best of my knowledge.

Q. And who is Victor Hauser?

A. The same, employee of the Litchfield Creamery Company.

Q. Do either of them have anything to do, if you know, whether they are interested in any way with the Carolene Products Company?

A. I don't know.

Q. When these individuals order this shipped—call you to tell you to make a shipment; do they tell you who it is, their names?

A. Yes, sir, if I don't recognize their voice.

. . . . . .

(Transcript, p. 59)

Q. Now, Mr. Thompson, what other substance was put in this filled milk or milk product?

Mr. Mathews: I object to the expression "filled milk."

Q. Yes. Milk compound, in the manufacture of it in 1941?

The witness: Other than what?

Q. Than what you have described, fish oil, coconut oil or cotton-seed oil and skimmed milk. What else was put in?

The Witness: In what form? What else do you mean?

Q. I mean what other substance was put in this skimmed milk and these other ingredients to make this milk compound that you manufactured and canned for the Litchfield Creamery Company?

. . . . . .

(Transcript, pp. 59-60)

A. Nothing that I know of.

. . . . . .

(Transcript, p. 60)

Q. Did you ever put di-sodium phosphate in skimmed milk to make this compound?

A. Sometimes it is necesary.

Q. I didn't ask you if it is necessary. Did you ever put it in?

A. It has been done in the plant. I didn't do it personally.

Q. Was it done under your direction?

A. Yes.

. . . . . .

(Transcript, pp. 60-61)

Q. Isn't it true it is put in there as a preservative to keep the milk from curdling and from souring?

. . . . . .

(Transcript, pp. 61-62)

A. It is put in evaporated milk and in the milk product which we make to help stabilize the milk salts so that they will stand sterilization.

Q. Would that be to preserve the product?

Mr. Matthews: We object to that.

The Court: If he knows, let him answer.

Mr. Mathews: Exception.

Q. Why did you order it put in when you did order it put in, for what purpose?

Mr. Matthews: I object, unless he knows.

The Court: Overrule the objection.

Mr. Matthews: Exception.

The Witness: What do you mean by "preservative"?

Mr. Gibson: You answer my question.

The Witness: You have to define "preserving" before I can tell you.

Mr. Gibson: Well, preserving is to keep.

A. I think I can answer the question "no."

Q. Go ahead.

A. That's my answer, "no."

Q. What's that?

A. No, it isn't a preservative, to the best of my knowledge.

Q. You don't know why you put it in?

A. Yes.

. . . . . .

(Transcript, p. 62)

Q. Would you say that this di-sodium phosphate is put in to keep the milk from curdling?

. . . . . .

(Transcript, pp. 62-63)

A. It is put in to keep the milk from curdling during sterilization.

Q. Do you know Mr. J. T. Sullivan?

A. If it is the man I think it is, I have met him, yes.

Q. An inspector?

A. Yes.

Q. Do you remember his making an inspection of the Warsaw plant, of which you were superintendent, on April 8, 1941?

A. He has been in the plant. I don't remember the date.

Q. Do you remember showing Mr. Sullivan through the plant about that time?

A. He has been in the plant twice, but I don't remember the dates. Twice that I recall.

Q. Do you remember whether or not you gave him any of the labels used on the cans?

(Transcript, p. 63)

Q. (Continuing)—of the Carolene Products Company.

A. I believe he did get some labels of the Carolene Products Company.

Q. And you gave them to him as samples of the labels you were then using?

A. Yes, I was requested to by him.

(Transcript, p. 65)

The Reporter: (Reading) "And you gave them to him as samples of the labels you were then using?"

A. The best of my memory. I guess they were.

Mr. Gibson: Mr. Thompson, you may tell the Court whether or not you ever made any genuine evaporated milk at the Warsaw plant.

A. Yes.

Q. Did you make any in about the year 1941?

A. I don't remember that we did in the year 1941.

Q. When you did make this what is known as evaporated milk at that plant did you use the same machinery

that you used in making the milk compound about which you testified?

A. Yes.

(Transcript, p. 66)

Q. Did you pack any genuine evaporated milk in the same sized cans that you did the milk compound?

A. Yes.

Mr. Matthews: I object to the question.

The Court: Overruled.

Mr. Matthews: Exception.

Q. Did you put the same label on the genuine evaporated milk that you did on the compound?

A. No.

Q. What kind of a label did you put on the evaporated milk?

A. What do you mean, what kind? Do you mean the brand named Sunshine?

Q. Yes. Was it packed for the Carolene Products Company?

(Transcript, p. 67)

A. No.

Q. What name did it carry?

Q. The evaporated milk.

A. It was packed for Litchfield Creamery Company.

Q. How many cans were packed of Carolene, Milnot, and Milnut in a case?

A. 48.

Q. How many of the evaporated milk of the Litchfield Creamery Company was packed in a case?

. . . . . .

A. 48.

. . . . . .

(Transcript, p. 68)

Q. When you packed 48 cans of evaporated milk for Litchfield Creamery Company in a case.

A. Yes.

Q. You packed 48 cans of milk compound, for Carolene Products Company in a case. Was there any difference in the labeling of those cases?

. . . . . .

A. The court record will bear us out. I am not right positive on my answer on that but I think somewhere in the testimony I said Litchfield Creamery Company packed for the Carolene Products Company. We packed Milnot. I stated that we have packed evaporated milk for the Carolene Products Company.

(Transcript, p. 69)

Q. No you didn't say that. Did you pack this milk compound for the Carolene Products Company?

A. Yes.

. . . . . .

Q. And labeled it "Mainufactured for Carolene Products Company"?

A. I think the label read that way.

Q. Now, Mr. Thompson, when you made a shipment did you bill it out to the customer? Suppose you shipped a carload of the milk products of this compound, did you bill it out?

A. The bills of lading are made in our office.

Q. The bills of lading?

A. Yes.

Q. What name did you put on the bill of lading?

(Transcript, p. 70)

A. When we shipped Milnot, Milnut and Carolene, we shipped from—the bill of lading reads: "Shipped from Carolene Products Company."

Q. And when you shipped Sunshine what did your bill of lading read there?

(Transcript, pp. 70-71)

A. The bill of lading read: "Shipped from Litchfield Creamery Company."

Q. Now, when you ship a carload of this milk compound for the Carolene Products Company do you invoice that to the customer?

A. No.

Q. Did you bill it to anybody?

A. A copy of the bill of lading was sent to the Litchfield office for billing.

Q. To the Litchfield office?

A. Yes.

Q. What Litchfield office?

A. Litchfield Creamery Company, Litchfield, Illinois.

Q. Was there any report made by you to the Carolene Products Company?

A. No.

Q. Have you been to the office of the Litchfield Creamery Company in Litchfield, Illinois?

A. Yes.

Q. Have you been to the office of the Carolene Products Company in Litchfield, Illinois?

A. I think you have got me. I would say yes.

Q. Who was in charge of the Litchfield Creamery Company's office?

A. Charles Hauser.

Q. Who is in charge of the Carolene Products Company?

A. Charles Hauser.

Q. You mean to say both offices were together?

A. This one man, as I understand it, has offices in both corporations. That is just my understanding, you understand. I don't know this.

. . . . . .

(Transcript, p. 71)

Q. Do you know who the president of the Litchfield Creamery Company by whom you are employed, who is the president of that corporation?

. . . . . .

(Transcript, p. 72)

A. William H. Hartke.

Q. And who, if you know, is the president of Carolene Products Company?

. . . . . .

(Transcript, pp. 72-73)

A. Charles Hauser.

Q. Did you ever make a report of shipment to either Mr. Hartke or Mr. Hauser personally?

A. No.

Q. Did you ever write them anything in connection with the bill of lading?

A. No.

Q. Mr. Thompson, I believe there is a railroad sidetrack made into your plant by the Warsaw Railway Company, or some such name?

A. Winona Railroad Company.

Q. Did you have that done? Did you arrange the contract to have it done?

A. It was all in when the company procured the building, before my employment, as I understand.

Q. It was there when you came there?

A. There have been some alterations.

Q. Who has made those alterations?

. . . . . .

(Transcript, p. 73)

A. It is under my direction.

Q. Did you do it, make the arrangements?

A. It was under my direction; yes, sir.

Q. Who told you to do that?

A. I think that was done by agreement, consultation.

Q. You said it was done under your direction. Who directed you to put that, to make those changes?

. . . . . .

(Transcript, pp. 73-74)

A. There were consultations in which Melvin Hauser and Charles Hauser, Otto Bierbaum, after consultation I was directed by these men to go ahead.

Q. Where were those consultations held, at the Warsaw plant or where?

A. Both places. They have been up there and I have been down to Litchfield.

Q. At both places, the Warsaw plant and what other places?

A. Litchfield, Illinois.

Q. What place in Litchfield?

A. In the Litchfield Creamery Company, Litchfield Illinois.

Q. Mr. Thompson, tell the Court whether or not there was any difference between the products named marked Milnot and Carolene manufactured at the same time.

* * * * * * * *

(Transcript, p. 71)

A. It is the same product under a different label.

Q. Now, will you say whether there is any difference between Milnut and Carolene, manufactured at the same time?

* * * * * * * *

A. It is the same product.

Q. In other words, you made the product and labeled it according to your instructions?

A. Yes, sir.

* * * * * * * *

(Transcript, p. 72)

Q. And the product was all the same up to the time of labeling between Milnut and Carolene. It was made at the same time as Milnut and Carolene. That was made at the same time. Is that correct?

A. That is correct.

Q. Now you had charge of the labels, I believe, at the plant?

A. Yes.

Q. If you were labeling this milk compound that we have described, was it labeled all the same?

A. The labels the same for Carolene all the time, and Milnot all the time, and Milnut all the time.

(Transcript, pp. 75-76)

A. I think that the reading of the label when presented would be self-evident as to the difference in the label.

Q. Suppose you were labeling Carolene for West Virginia, "To West Virginia", and another shipment of Carolene, or the same product made for the same people for the State of Michigan, did you use the same label coming to West Virginia as you did to Michigan?

A. No.

The Court: You mean at the same time?

Mr. Gibson: At the same time.

The Court: What was the answer?

A. No.

Q. What would be the difference?

A. The labels are identical with the exception of the words "filled milk" on the label for Michigan.

(Transcript, pp. 76-78)

Mr. Gibson: Mr. Thompson, tell the Court whether or not on or about the 11th day of April, 1941, you shipped from Warsaw, Indiana, to Clarksburg, West Virginia, and billed to the Horner-Gaylord Company 1000 cases, each case containing forty-eight 14½ ounces cans, which were labeled Milnot. Did you make that shipment?

Mr. Mathews: That was stipulated.

The Court: The stipulation, count one, is that, "on or

about the 11th day of April, 1941, on waybill number 63 there was shipped from Warsaw, Indiana, in cars WRLX, number 703, to Horner-Gaylord, Clarksburg, West Virginia, 1000 cases called Milnot by the Winona Railroad Company, a common carrier, and New York, Chicago and St. Louis Railroad Company, a common carrier, and Baltimore and Ohio Railroad Company, a common carrier, the freight being prepaid, and that said shipment was received in cars WRLX, number 703, at Clarksburg, West Virginia, on April 15, 1941."

Mr. Gibson: That stipulation says that it was shipped. Now I am asking this man if he shipped them.

Mr. Matthews: What difference does it make?

The Court: Well, let him answer.

Mr. Gibson: It makes a lot of difference.

Q. Did you make that shipment?

Mr. Matthews: Exception.

A. If the record bears it out, we did, but I wouldn't attempt to remember all the shipments made.

Mr. Gibson: Have you got a record with you?

A. No.

Q. Is there one available for your use here?

A. I was not subpoenaed to bring any records.

Q. Regardless of that is there one available here for your use?

A. That I don't know.

Q. If that shipment was made by you and marked Carolene Products Company on the waybill, for whom was it shipped by you?

A. For the Carolene Products Company.

Q. Do you know anything of these other seven additional shipments complained of?

A. No, sir.

Q. You don't have any memoranda on it?

A. No, sir.

Q. Who made these shipments, you personally or some other person in your office?

. . . . . .

(Transcript, p. 78)

A. I was in charge of the plant and the men who did the loading. Is that what you mean?

Q. Who billed them out?

A. The bill of lading was written by my secretary under my direction.

Q. Who signed them?

A. I think she did.

. . . . . .

Q. Who directed you, if you remember, to make the shipment I enquired about to the Horner-Gaylord Company of Clarksburg?

. . . . . .

(Transcript, p. 79)

A. As I said before, I wouldn't attempt to remember that far back, but if the shipment was made, it came from the Litchfield office to me.

The Court: From what company?

A. The Litchfield Creamery Company, at Litchfield, Illinois. It probably was phoned to me, or written to me, by Melvin Hauser or Victor Hauser.

. . . . . .

Q. Then if what you say is correct, the shipments were not made for the Carolene Products Company as shown on the record, were they?

. . . . . .

(Transcript, pp. 79-80)

A. The bill of lading says the shipment was Carolene Products Company.

Q. The bill of lading said that, and you ordered it put on there. Is that right?

A. That is right.

Q. But the Carolene Products Company, as I understand, never told you to ship it. Is that right?

A. May I make an explanation?

Q. I have been trying to get you to make an explanation.

A. Would it not be possible for the Carolene Products Company to tell the Litchfield Creamery Company at Litchfield, Illinois, "here is a shipment" and for the Litchfield Creamery Company official at Litchfield, Illinois, to instruct me to make that for and in behalf of or for Carolene Products Company?

. . . . . .

(Transcript, p. 80)

Q. Did that happen?

A. That is the way it happened.

Q. Now, you speak about Litchfield and Carolene, who is Litchfield? Who directs Litchfield?

A. Litchfield Creamery Company?

Q. Yes.

A. Mr. Hartke is president.

Q. Who directs Carolene?

. . . . . .

(Transcript, p. 81)

A. Mr. Hauser is president.

Q. What Hauser?

A. Charles Hauser is president of the Carolene Products Company.

Q. How many Hausers are connected with the Carolene Products Company, if you know, or how many?

A. I don't know the officers of the Carolene Products.

Q. Regardless of the officers.

A. I don't know the relationship of the Hausers to the Carolene Products Company with the exception of Mr. Charles Hauser, who is president.

Q. Do you know the relation of the Hartkes and the Hausers in the Litchfield Creamery Company?

A. Mr. Hartke is president. Mr. Hartke is secretary, I think, and I think he is general manager. Now, you said not to say what I think. Melvin Hauser is treasurer.

(Transcript, pp. 81-82)

Q. You said that you were employed by the Litchfield Creamery Company. Who paid you?

A. Litchfield Creamery Company.

Q. Who signed the checks?

A. I do.

Q. You sign your own check?

A. Yes, sir.

Mr. Matthews: No cross examination.

(Transcript, p. 92)

Mr. Gibson: Counsel has now agreed, and it is stipulated, that if the original shipping orders of the Winona Railroad Company covering each of the shipments described in the indictment and stipulation would be introduced into the record they would show the Carolene Products Company as shipper of each of the shipments complained of in the indictment and described in the stipulation, and that all of these shipments except the

one of April 11, 1941, in car WRLX No. 703, bear the initials "MIV." Is that agreeable?

Mr. Matthews: Your Honor, the stipulation as stated by the District Attorney is correct.

. . . . . .

(Transcript, pp. 93-94)

Mr. Gibson: I would like to have that stipulation read over, please.

Thereupon, the stipulation was read by the reporter, as follows: "Counsel has now agreed, and it is stipulated, that if the original shipping orders of the Winona Railroad Company covering each of the shipments described in the indictment and stipulation would be introduced into the record they would show the Carolene Company as shipper of each of the shipments complained of in the indictment and described in the stipulation, and that all of these shipments except the one of April 11, 1941, in car WRLX No. 703, bear the initials "MIV."

Mr. Gibson: I would like to change that—instead of "bearing the initials" to "Carolene Products Company, per MIV." Is that agreeable?

Mr. Matthews: That is satisfactory. The initials "MIV" I take it, are the initials of the young lady who testified yesterday whose name is——

Mr. Gibson: Marjorie I. Vollmer.

The Court: And that she was secretary to the general manager of Carolene Products Company—wasn't she?

Mr. Matthews: Secretary to the general manager of the Litchfield Creamery Company at Warsaw, Indiana.

The Court: Yes, Secretary of Litchfield Creamery Company.

Mr. Matthews: Secretary to the general manager of the Litchfield Creamery Company at Warsaw, Indiana.

. . . . . .

William Howard Thompson—for Government—Recalled—Direct:

(Transcript, pp. 94-95)

By Mr. Gibson:

Q. You are the same Mr. Thompson that testified in this case yesterday?

A. Yes, sir.

Q. Mr. Thompson, during the year 1941 did you ship anything for the Carolene Products Company other than this milk compound, made up of skimmed milk, cotton-seed oil, coconut oil, fish-liver oil, and so on, did you ship anything in their name or for them other than that?

A. I don't think so. I'm quite sure we didn't.

Q. Did you do any work there, or did your company do any work for them, other than the preparation of this particular product?

A. No.

No cross examination.

Robert E. White—for Government—Direct:

(Transcript, p. 104)

By Mr. Gibson:

Q. Please state your name?

A. Robert E. White.

Q. Where do you live, Mr. White?

A. Evanston, Illinois.

Q. What is your business or profession?

A. Advertising agency.

Q. By whom are you employed?

A. Henri, Hurst and McDonald, Incorporated.

Q. What is their address?

A. 520 North Michigan Avenue, Chicago.

Q. Mr. White, have you had occasion to prepare advertising for the Carolene Products Company?

A. Yes, sir.

Q. About the year 1941?

A. Yes, sir.

Q. Who did you contact as the representative of the Carolene Products Company in connection with that business?

. . . . . .

A. Melvin Hauser.

. . . . . .

(Transcript, p. 105)

Q. Anybody else?

. . . . . .

A. All contracts which we held were signed by Melvin Hauser.

. . . . . .

(Transcript, p. 106)

Q. Who else did you contact in connection with this advertising in 1941 of the Carolene Products Company other than Melvin Hauser, if anybody?

. . . . . .

A. Well, we held conferences, often attended by Mr. Charles Hauser, but all decisions for the advertising, and so forth, was handled with Melvin Hauser. Most of our contacts have been with Melvin Hauser.

Q. Where were these conferences held of which you speak?

. . . . . .

(Transcript, pp. 106-107)

A. Both in our office in Chicago and one or two occasions in Litchfield.

Q. In whose office in Litchfield?

A. Carolene Products Company.

Q. Where did you see Mr. Charles Hauser? In your offices in Chicago or at Litchfield, the Carolene Products Company?

A. We saw him at both places.

. . . . . .

L. W. Graaskamp—for Government—Direct:

(Transcript, p. 108)

By Mr. Gibson:

Q. Please state your name.

A. L. W. Graaskamp.

Q. Where do you live?

A. Evanston, Illinois.

Q. What is your business or occupation?

A. I am the Assistant Manager of Sales of the American Can Company, Chicago, Illinois.

Q. Mr. Graaskamp, do you know the defendant, Charles Hauser?

A. Yes, sir.

Q. William H. Hartke?

A. Yes, sir.

Q. Did you ever have any business with the Litchfield Creamery Company or the Carolene Products Company?

. . . . . .

J. J. Stump—Direct.

(Transcript, p. 109)

A. With the Litchfield Creamery Company.

Q. What was the extent of that business?

A. We have a requirements contract to supply them with the tin cans which they required.

Q. In other words, all their requirements.

A. Yes, sir; for this particular type of can.

Q. What do you mean "a particular type of can?"

A. The can used for the liquid product. I am differentiating between a large-sized milk can and any other family type of can which is made, which we speak of, the type of can which the Judge has on his desk there.

Q. You furnished no cans than and have no contact or business contract with the Carolene Products Company?

A. No, sir.

Mr. Gibson: Take the witness.

Mr. Matthews: No cross examination.

J. J. Stump—for Government—Direct:

(Transcript, p. 110)

Mr. Matthews: If your Honor please, I am advised as to the purpose of this witness, and the defendants and each of them agree and stipulate that the products described in the respective counts of the indictment after their arrival at the destination named in the counts, which arrival we have already stipulated, were in turn delivered to the consignee named in the respective counts at the address of the consignee.

Stipulation.

(Transcript, p. 111)

Mr. Gibson: My co-counsel suggests that that stipulation be followed by the words "from the place of shipment at Warsaw, Indiana." Is that agreeable?

Mr. Matthews: Your Honor, there is no question about that whatever. It is in the stipulation. Since it has been agreed that all the products in each count were shipped from Warsaw, Indiana, why do we have to designate Indiana or any other place?

The Court: And delivered at the destination to which they were directed in each count and at that destination were delivered to the consignee.

Mr. Matthews: Yes.

* * * * * * * * *

(Transcript, pp. 118-119)

STIPULATION

1. That, shortly after each of the shipments set forth in the indictment had been delivered as hereinbefore stipulated, a sample of each was secured from the respective consignees by an Inspector of the Food & Drug Administration, who placed the same under his seal and so transmitted the same to the Chicago station of the Food & Drug Administration.

2. That, if called as witnesses, Messrs. John H. Bornmann and William F. Kunke would testify:

(a) They received under the seals of the respective Food & Drug Inspectors, as described in Paragraph 1 above, the samples taken from each of said shipments.

(b) They forthwith made examinations and analyses thereof.

Charles Hauser—Direct.

(c) Each can subjected to such examination and analysis consisted, in whole or in part, of skimmed milk, to which had been added and which had been blended and compounded with an oil or fat other than milk fat, namely, either coconut oil or cotton seed oil, and which mixture had then been evaporated and homogenized.

(d) For many years they have been and at all times relevant hereto are duly qualified chemists in the Chicago station of the Food & Drug Administration, and have worked with evaporated milk and are thoroughly familiar therewith; each of the samples of Carolene, Milnut and Milnot, so examined by them was virtually indisfingnishable from evaporated milk in taste, color, odor, appearance and coinsistency; that each sample was packaged in the same size and style can as that in which evaporated milk is customarily packaged.

3. That said witnesses, if asked on cross examination, subject to objection by the Government and ruling thereon by the Court, would testify that they made no analysis to determine whether there was or was not added to said product high potency fish liver oil and no analysis to determine whether there was or was not a vitamin content in said product.

. . . . . .

Charles Hauser—for Government—Direct:

(Transcript, pp. 154-157)

Mr. Matthews: We wish to call the Court's attention to the fact that the witness who has now been called by the Government and is seated in the witness chair is the

Charles Hauser named as a co-defendant in this case. We object to the procedure up to date in this regard, and to any questions that may be asked him in regard to any matter connected with any of the defendants.

Mr. Gibson: If the Court please, it is pretty hard for the Court to rule on a question that hasn't been asked.

By Mr. Gibson:

Q. Is your name Charles Hauser?

Mr. Matthews: Objection.

Mr. Gibson: We are relying on the Wilson case, your Honor, of the Supreme Court.

The Court: I would like to look at that case. Where is it?

Mr. Matthews: Perhaps I haven't made myself clear. The basis of this objection is that you are invading the constitutional rights of a defendant in a criminal case in Federal Court. In other words, he is not required to incriminate himself.

Mr. Gibson? I will say that we are expecting to inquire of this witness in regard to the Carolene Products Company.

The Court: By what authority, Mr. Gibson, do you put a co-defendant on the witness stand and interrogate him about anything in connection with the alleged crime in the indictment?

Mr. Gibson: The Wilson case.

Mr. Matthews: Does your Honor desire that I make the motion exactly as we want to have it appear?

The Court: Yes. I want you to take your time. I think it is a very important matter.

Mr. Matthews: Your Honor, we now move for a directed verdict for the defendants, and each of them, namely, William H. Hartke and Charles Hauser, speaking

particularly of the last incident, which is now in point. Mr. Hauser having been called by the Government and sworn at the request of the Government and now on the witness stand. He has already been asked one question or more. We respectfully submit that this procedure is an invasion of the provisions of the Federal and State constitutions. It is a compulsion of a defendant in a criminal case to bear witness against himself, whether it be by appearance or by word, and, regardless of the question that is asked, how much more important is it in this case that this right be protected on the part of an individual officer of a corporation than it would be in the ordinary case, because the Government is seeking, as I understand this evidence, with what success your Honor best knows, to connect these officials of the Carolene Products Company with some of the transactions alleged to have taken place and the crimes alleged to have been committed in the eight counts of this indictment; and especially in view of the fact that we anticipate, in the event these motions are not sustained, that there will be considerable argument presented on behalf of the Government that the mere fact that these two gentlemen are officials of the Carolene Products Company makes them responsible for its acts. With respect to Mr. Hartke, on page 33 of the record, you will observe that the District Attorney asked him with reference to how long he had been with the company, how long he had been connected with it, and whether he helped incorporate it, and where its headquarters were. On page 34 of the record I made a statement to the effect that I believed it improper to put an individual defendant on the stand and ask general questions about his association with the corporate defendant, because it was impossible to differentiate between this testimony as to its applicability to the corporation as separate and distinct from its application to him. I stated that I thought it was error to question the de-

fendant about matters other than those which we are willing to stipulate. The Government disagreed with that statement. I objected to the question. Mr. Gibson withdrew it. I then moved to exclude the evidence so far as offered of the witness, insofar as any application it may have to him as an individual defendant is concerned, and your Honor held with me on that and stated that was right. We believe that in spite of the fact that the evidence was excluded the harm has been done, and we now make the motion as I have stated it. I want to make it separately on behalf of Mr. Charles Hauser, the defendant; separately on behalf of William H. Hartke, the defendant; and, naturally, jointly as to each, based upon the present situation as coupled with that which took place when Mr. Hartke was put on the stand by the Government, appearing on page 29 and following, in the transcript.

. . . . . .

(Transcript, pp. 159-160)

The Court: Motion overruled.

Mr. Matthews: Exception.

The Court: I agree with you, Mr. Matthews, that were there a jury here trying this case it would be an entirely different question. The question is whether or not a jury could eliminate from its mind such a thing that might go on in the trial, but the Court is supposed to be able to do so, and I will therefore overrule your motion for a mistrial and directed verdict.

You may take your exception.

. . . . . .

S. W. Ahlmann—for Government—Direct.

(Transcript, pp. 206-207)

By Mr. Gibson:

Q. Please state your name?

A. Samuel W. That is, S. W. Ahlmann.

Q. Where do you live, Mr. Ahlmann?

A. I live in Cincinnati. Cincinnati, Ohio.

Q. What official position, if any, do you have with the United States Government?

A. I am a food and drug inspector with the Federal Food & Drug Administration.

Q. Are you acquainted with the defendant William H. Hartke?

A. I know Mr. Hartke.

Q. Are you acquainted with the other defendant, Charles Hauser?

A. I know Mr. Hauser, Charles.

Q. You may state whether or not you know of the plant of the Litchfield Creamery Company, Litchfield, Illinois?

A. There is a plant, the Litchfield Creamery at Litchfield, Illinois.

Q. Were you ever at that plant?

A. I have been to their plant.

Q. State if you know of the plant or operation of the defendant Carolene Products Company?

A. I didn't catch your question, I don't believe. The Carolene Products Company is located in Litchfield at the plant of the Litchfield Creamery Company.

Q. At the plant?

A. Yes.

Q. Do you know where the office of the Litchfield Creamery Company is located?

A. The business office?

Q. Yes.

A. It is at the Litchfield Creamery Company, in Litchfield, Illinois.

Q. Where is the business office, if you know, of the Carolene Products Company?

A. The business office of the Carolene Products Company is at a building occupied by the Litchfield Creamery Company at Litchfield, Illinois.

Q. In the same building?

A. Yes, sir.

(Transcript, pp. 207-210)

Q. Is there any physical connection between these two offices that you know of?

A. They appear the same.

Q. You mean they occupy the same roof?

A. I discussed the products of both in the same room.

Mr. Matthews: We object to that. That is a conclusion.

Mr. Gibson: With whom did you discuss these products?

The Court: The question is whether there was any physical connection between them, doors between them, and so forth.

A. Your Honor, when I enquired to talk to the responsible officials of these two organizations I was invited to a certain individual, who invited me in his office, and I discussed it in his office which apparently was a business office.

Mr. Matthews: I would like to know the individual with whom he talked and when it was that he talked.

A. On April 28, 1941, to one of the defendants, Charles Hauser, and to his son, Melvin Hauser.

Mr. Gibson: Tell the Court, relate as best you can, the conversation between yourself and Charles Hauser in connection with the products marketed by the Carolene Products Company?

A. I enquired of Mr. Hauser if they were distributing skimmed milk compounds, and he replied that they were continuing to distribute these compounds.

Q. Now, who was distributing them?

A. The Carolene Products Company. You are speaking of the Carolene Products Company?

Q. Yes.

A. Do you wish me to continue?

Q. Was there anything said about the manufacture of these products and by whom and where?

A. Mr. Charles Hauser informed me that he had recently consulted officials of the food and drug administration of the federal government concerning the labeling of the skimmed milk compounds from the standpoint of the Federal Food, Drug and Cosmetics act. He stated that he felt the products were then properly labeled under that act.

Q. They were what?

A. He stated that he felt the product was correctly labeled under that act. He stated that while no approval of the labels was given and they were not discussed from the standpoint of the Federal Milk Act that he had changed his filled milk products in such a manner that in his opinion they were legal.

Q. Did he say by whom this product was manufactured?

A. Yes. I talked to him about the manufacture of skimmed milk.

Q. Who did he say made them?

A. He stated they were made by the Litchfield Creamery.

Q. The Litchfield Creamery Company?

A. The Litchfield Creamery Company.

Q. Did he say at what places they were manufactured?

A. He stated they were made in Litchfield, Illinois, and at Warsaw, Indiana.

Q. You may state whether or not he made any statement to you in regard to the packing or packaging of these products?

A. I don't think he did. I don't recall if he did regarding the packaging of the product. I don't know what——

Q. Did he say anything to you about the labeling of the product?

Mr. Matthews: He already answered that, Your Honor.

A. I asked Mr. Hauser for specimens of the label they were employing on the skimmed milk compounds and specimens of their collateral materials that they used for permitting sales, and I asked him for other information, other material, particularly the shipments of these materials we have had recently made.

Q. Did he furnish you those labels?

A. Mr. Hauser called his son, Melvin Hauser, and asked me to furnish this information which I desired and gave me a record of all of their recent shipments of these skimmed milk compounds, and he assisted in getting the records for me, getting the exhibits—labeling exhibits.

. . . . . .

(Transcript, pp. 210-211)

The Court: Asked "him" or "me"? Mr. Hauser called his son Melvin and asked his son or you to furnish him?

A. His son.

The Court: Change that "me" to "him".

A. I beg your pardon.

Mr. Gibson: To furnish this information that you were seeking about shipments?

A. That I was seeking about the conduct of the business. Yes, sir.

Q. Were you furnished any labels?

A. I was furnished labels and other descriptive material.

Q. Do you have any of those labels?

A. Not on my person. They were in court, I think, properly identified.

Q. Would you know those labels if you saw them? Could you identify them?

A. Yes, sir.

Q. Suppose you get them. Step down here and pick out the ones.

(The witness leaves the witness stand and after a time returns thereto.)

. . . . . .

(Transcript, p. 212)

Q. Mr. Ahlmann, you may state whether or not you now have in your possession the labels about which you have heretofore testified?

A. I have.

Q. Will you give me those labels, one at a time, please.

(Thereupon seven papers were marked Government Exhibit No. 19 for Identification to Government Exhibit No. 25 for Identification, inclusive.)

Mr. Gibson: We are offering them.

. . . . . .

(Transcript p. 213)

(The papers were thereupon marked Government Exhibit No. 19 to Government Exhibit No. 25, inclusive.)

Mr. Matthews: We would like to call the Court's attention to the fact that there are penciled memoranda on the respective labels that certainly are not admissible. I assume they were made by the witness.

Mr. Gibson: I might say, Your Honor, speaking of Exhibit 19, there is a pencil memorandum "4-28-41, L W A," the initials of the witness.

The Witness: S W A. Those are my initials.

. . . . . .

Mr. Gibson: There is a memorandum in somebody's handwriting on the right-hand corner of Government Exhibit 19 as I have read it "not used, Litchfield, Illinois, plant."

A. I wrote that on there when I got the labels.

Q. Why did you write that on there?

. . . . . .

(Transcript, p. 214)

A. Because Melvin Hauser informed me that this Mijnut with coconut oil bearing the statement "filled milk" was not employed at the Litchfield, Illinois, plant but was used at Warsaw, their Warsaw, Indiana, plant. They had a stock of labels. I obtained specimens of

Mr. Matthews: They had what?

A. A stock.

Mr. Matthews: They had a stock of labels?

A. They had a stock.

Mr. Gibson: I think that part of the exhibit should go out "not used, Litchfield, Illinois, plant" but the exhibit is a thing that appears for what it is. I don't know how to get rid of it.

Mr. Matthews: Let him state in there that it is out and have the witness explain what it is.

. . . . . .

A. My best recollection is Mr. Melvin Hauser informed me that they used these labels at their Warsaw, Indiana, plant from which they shipped and they did not ship these compounds to Warsaw from their Litchfield, Illinois, plant.

. . . . . .

(Transcript, p. 215)

Q. Did you ever visit the Warsaw plant of the Litchfield Creamery Company?

A. I have not.

Q. How many times have you called, you say, at the plant of the defendant here, Carolene Products Company, at Litchfield, Illinois?

The Court: Litchfield plant of the Carolene Products Company?

Mr. Gibson: Not plant, office.

Mr. Matthews: Litchfield office.

A. I have only been at the office on one occasion. That was on the occasion previously testified to.

Mr. Gibson: Q. Have you ever interviewed or talked

to Mr. Charles Hauser at any other place than the office in Litchfield, Illinois?

A. I have seen him and spoken to him.

(Transcript, pp. 216-217)

Q. You may tell the Court whether or not you were advised by Mr. Charles Hauser as to what tradename this skimmed evaporated milk compound was sold under?

A. Yes. At that time incidently I made a complete factory inspection. I made a rather comprehensive inspection of the plant and discussed the product at some length with Mr. Hauser.

Mr. Matthews: Who?

A. Charles Hauser and his son, Melvin Hauser, and they told me. * * * Mr. Charles Hauser told me they were selling under the name of—they said they were going shall I tell you the conversation?

Mr. Gibson: Go ahead.

A. He stated that they were substituting cotton-seed oil and cocount oil.

Mr. Matthews: You mean by them the Carolene Products Company?

Mr. Gibson: The Carolene Products Company.

Mr. Matthews: Instead of Litchfield.

A. I enquired when I entered the premises of the factory. I enquired for the responsible official of the Litchfield Creamery Company and the Carolene Products Company, and I was directed to Mr. Charles Hauser as

the representative of both companies, and when he spoke of the compounds I assumed at that time that this compound, without differentiating each time, that we were discussing the products rather than the set-up of each individual organization although he did tell me that these products were made; the skimmed milk compounds were made by the Litchfield Creamery Company, as I had previously witnessed in the plant, and they were packed for the Carolene Products to distribute, and he went on to tell me, too, how he had improved the products, developed the skimmed milk compounds, improved it, and he thought now he had got a good product since he was substituting cotton-seed oil for coconut oil, and he didn't feel that he would meet with such objection in the southern states by using cotton-seed oil instead of an imported oil, the coconut. He said the skimmed milk compound or cotton-seed oil, formerly known as Milnut, would be packed under the name of Milnot, and that they would continue the distribution of Carolene under the name of Carolene with cotton-seed oil. They were also making some with coconut oil at that time and making Milnut with coconut oil at the time I visited the plant.

Mr. Gibson: Take the witness.

S. W. Ahlmann—Cross:

(Transcript, pp. 217-222)

By Mr. Matthews:

Q. How long did you spend in conversation with Charles Hauser, please, Mr. Ahlmann?

A. I should say on two occasions I judge I interviewed him a total of about an hour and a half.

Q. Did you say there were two occasions?

A. Yes, sir.

Q. You gave the date of April 28th.

A. In the morning and the afternoon of the same day.

Q. You talked to him in the morning and in the afternoon?

A. That is correct.

Q. And in an office in the Litchfield Creamery Company at Litchfield. Is that correct?

A. That is correct.

Q. Whether that office was the office of the Carolene Products Company or the office of the Litchfield Creamery, you don't know?

A. Yes I do.

Q. How do you know?

A. When I first entered the office I asked the woman receptionist, the lady receptionist, if I was in the office of the Litchfield Creamery Company and the Carolene Products Company.

Q. Was there just one room in all the offices?

A. Oh, no. There were a number of rooms. There are a number of rooms there for different offices.

Q. Did you see any indication of any separate physical existence of the Carolene Products Company?

A. I didn't see any physical existence of the Carolene Products other than the inspection of their products.

Q. You did see them in an office where you were, specimens of their products?

A. In the plant.

Q. In the plant?

A. Yes, sir.

Q. How long did you talk to Mr. Charles Hauser in the morning, approximately?

A. I would say I talked to him about an hour. I didn't do much talking.

Q. In the morning?

A. Yes, sir.

S. W. Ahlmann—Cross.

Q. And in the afternoon about half an hour?

A. About an hour and a half.

Q. Did he go with you on your inspection of the plant?

A. No, sir, he designated—excuse me.

Q. Who did?

A. Lawrence Neimann, a bacteriologist, I believe, n-e-i-m-a-n-n may be the spelling, he called him up and introduced him.

The Court: Who called him up?

A. Charles Hauser.

Mr. Matthews: Q. And in your inspection of the plant were you accompanied by anyone other than Mr. Neimann?

A. I wasn't accompanied by anyone other than Neimann. Others joined us and they said a few words from time to time very likely. I don't recall. I wasn't formally introduced to them I don't think.

Q. It was a large plant occupied for that purpose?

A. It is—I wouldn't say large. It is a good sized plant.

Q. You were given cooperation?

A. Yes, sir. Excellent.

Q. Now, you were told by Mr. Hauser that the Carolene Products Company were marketing this product. Is that correct?

A. These products.

Q. Yes.

A. The skimmed milk compounds.

Q. Carolene, Milnot and Milnut, and that the Carolene Products Company had recently improved these products?

A. So he stated.

Mr. Reno: It is objected to as being improper cross

examination. I believe the record will show that Mr. Hauser said he was changing the products.

A. That is what I answered.

Mr. Reno: It is improper cross.

Mr. Matthews: Q. Isn't it true you told us Carolene Products was the company having this product manufactured by the Litchfield Creamery Company and that it was marketed there? Didn't you say that?

A. Mr. Matthews, I was led to believe that Mr. Charles Hauser was speaking for the Litchfield Creamery Company and for the Carolene Products Company through my interview with him.

Q. That was your conclusion?

A. Well, he led me to believe that.

Q. You knew that he was an officer of one of those companies?

A. I know he was an officer of both firms.

Q. You knew that?

A. Yes, sir.

Q. Mr. Hauser didn't tell you that he personally was marketing the product or having it made for him?

A. He spoke of it. He said, "I started out as a dairy farmer. I developed the product. I improved it."

Q. And yet you knew it was a corporation?

A. I knew it was a corporation.

Q. Did you say you knew it was a corporation?

A. I didn't have the corporate statement at that time.

Q. Alright. He did tell you that they had been substituting cotton-seed oil for coconut?

A. That is correct. He said they had been doing some of it.

Q. And he neglected to state also that they had been putting in vitamins A and B or fish-liver oil in the products?

John T. Sullivan—Direct.

A. Oh, yes, he was putting in other materials than that.

Q. You didn't say anything about that?

A. Yes. He said he was adding vitamin.

Q. You saw the oil being added, did you?

A. I saw the coconut being added. The coconut was being used on that day of my visit.

Q. Did you see any of the cotton-seed oil?

A. There was none immediately around where it was being manufactured. They were using coconut oil. They had cotton-seed oil there.

Mr. Matthews: I think that is all.

Mr. Gibson: That is all.

. . . . . .

John T. Sullivan—for Government—Direct:

(Transcript, pp. 230-231)

By Mr. Hamstead:

Q. State your name.

A. John T. Sullivan.

Q. Are you of legal age?

A. Yes, sir.

Q. Where do you live, Mr. Sullivan?

A. Chicago, Illinois.

Q. What official position, if any, do you hold with the United States Government?

A. At present none.

Q. What official position, if any, did you hold with the United States Government in April, 1941, and for many years prior thereto?

A. I was the Senior Food and Drug Inspector, working for the Food and Drugs Administration of the Federal Security Agency.

John T. Sullivan—Direct.

Q. As such, would you briefly relate to the Court your duties?

A. My duties was to make factory inspections of plants manufacturing products which came under the Food and Drug act, filled milk law, Tea Importing act, and all the other acts enforced by the Food and Drug Administration.

Q. In the course of your duties, did you become acquainted with the affairs of the Carolene Products Company?

A. I did.

Q. Of Warsaw, Indiana?

. . . . . .

(Transcript p. 231)

A. I did.

. . . . . .

Q. Where was the Carolene Products Company place of business in April, 1941, if you know?

A. Litchfield, Illinois.

Q. Did you visit the plant or headquarters of the defendant Carolene Products Company at Litchfield, Illinois, near April, 1941?

. . . . . .

(Transcript, p. 232)

A. No, I did not.

Q. When did you visit it?

A. In April—on April 8, 1941, I called at the plant of the Litchfield Creamery Company at Warsaw, Indiana, and there was informed—

. . . . . .

(Transcript, p. 233)

Q. Did you visit a plant where the products labeled Carolene product Milnot or Milnut was being made?

. . . . . .

(Transcript, pp. 233-234)

Q. In the year 1941, at Warsaw, Indiana?

A. I did.

Q. Describe the plant.

A. The plant is located in the eastern section of the city of Warsaw, Indiana, and it is engaged in the production of filled milk and other products.

. . . . . .

(Transcript, p. 234)

Q. What was the name of the plant you visited and saw these products?

A. There wasn't any name on the factory, but I had previously visited this factory in 1937, and at which time

. . . . . .

(Transcript, p. 235)

Q. What did you do at the plant in 1941 at your visit?

. . . . . .

A. I entered the plant.

. . . . . .

(Transcript, p. 238)

Q. I will ask you another question. What did you see in 1941 when you visited a plant wherein you found the labeled product designated as Carolene product Milnot or Milnut.

. . . . . .

(Transcript, pp. 238-239)

The Court: What did you see at a plant where you found a product labeled Carolene Milnot and Milnut, at Warsaw, Indiana?

A. I saw many things. May I explain it in my own way?

The Court: I am not examining the witness, I am only sitting here trying to rule.

Mr. Hamstead: I am asking you to relate what you saw being produced there.

A. I saw evaporated milk compounds being manufactured and labeled "Carolene" and "Milnot."

Q. Who was manufacturing it, if you know?

A. The manufacturing was conducted under the supervision and direction of William Howard Thompson, the Manager.

Q. Did you talk to Mr. Thompson at that time and place?

A. I did.

Q. Relate briefly, the conversations you then and there had with him.

Mr. Matthews: We object to the question as being clearly not binding on either one of these defendants.

. . . . . .

(Transcript, p. 248)

The Court: Now, gentlemen, I am inclined to let him answer that question as to the Carolene Products only, not as to the individual defendants. The only way a corporation can act is through its representatives, and this record shows that Mr. Thompson was the manager. I will let him answer as to the corporation.

. . . . . .

(Transcript, p. 248)

The Court: Gentlemen, I have ruled now. I said it could be answered as to the Carolene Products.

Mr. Matthews: Yes, Your Honor. Save my exception on that theory.

Mr. Hamstead: Q. Now, Mr. Witness, do you understand the question?

A. I would like to have it read again to me there.

The Reporter: (Reading) "Relate briefly the conversations you then and there had with him."

A. I asked Mr. Thompson what is the name of this company.

. . . . . .

(Transcript, pp. 250-251)

Mr. Hamstead: Tell the Court what conversation you had with Mr. Thompson at the time and place that you have related you did have a conversation with him.

Mr. Matthews: I object to the question.

The Court: I will let him answer as to the Carolene Products Company and not as to individual defendants.

Mr. Matthews: Exception.

A. I asked him the name of the firm operating the plant and he replied "Litchfield Creamery Company." He further stated that the Litchfield Creamery Company's principal office and main plant was at Litchfield, Illinois, and that it was an Illinois corporation, of which William H. Hartke was president, Charles Hauser was secretary, *Alvin* Hauser was treasurer. He further stated in response to my question if they also operated under the name of the Carolene Products Company and Mr. Thomp-

son stated the Carolene *Product* Company is operated by or closely connected with the Litchfield Creamery Company as a selling organization in the distribution and sales of evaporated milk compound put out under the Carolene, Milnot labels.

Mr. Hamstead: Q. What, if anything, did he tell you relative to the officers of the Carolene Products Company?

Mr. Matthews: I object to the question for the same reason.

The Court: I will let him answer that.

Mr. Matthews: Exception.

(Transcript, p. 251)

A. At that time he didn't state.

(Transcript, pp. 251-252)

Q. What other conversation, if any, did you have with Mr. Thompson relative to how the product labeled Carolene product, Milnot, Milnut, was shipped?

Mr. Matthews: I object to the question for the same reason heretofore stated.

The Court: Let him state for whatever it may be worth.

Mr. Matthews: Exception.

(Transcript, p. 252)

A. Mr. Thompson told me on another occasion.

Mr. Hamstead: Q. Before relating that, when and where was that?

A. That was January 13, 1943.

(Transcript, pp. 252-256)

Mr. Hamstead: Q. You have been instructed by the Court not to relate the subject-matter of any conversation between you and Mr. Thompson in January, 1943. Leave that out of your testimony, and continue if you have anything further to relate to the Court of the conversation with Mr. Thompson in April, 1941?

A. I informed Mr. Thompson.

Mr. Matthews: I object to the question and to that particular part of it now.

The Court: Overrule that.

Mr. Matthews: Exception. Pardon me for interrupting.

A. I informed Mr. Thompson that, of a desire to make a factory inspection of the plant and to secure certain information required on the forms of the Food and Drug Administration I proceeded to ask him those questions and then proceeded out in the factory. I started out to watch the milk coming in, weigh it and load it, piped to the storage tank, heated to a hundred degrees, then ran through a separator which removed the milk fat, which was conveyed by pipe to tanks to another portion of the building. The skimmed milk which remained after the removal of the milk fat was then sent through a pre-heater and heated to 190 degrees, after which the product was run into a series of two hot wells, which are the same as steel tanks, and about 600 gallons was run into these hot wells, and 18 gallons of coconut deodorless oil was run into the batch, having previously been heated to a hundred degrees.

The Court: What was that as to the coconut?

A. The 6 gallons of coconut oil which was—the 18 gallons of coconut which were run into the hot wells. In the hot wells a small amount of disodium phosphate was added and the product heated to about 200 degrees, after which it was piped to the vacuum pans or evaporators and reduced down in the proportion of 2.2 to 1 under vacuum. The product was then through a homogenizer in which the globules of fat were broken up and the product run into tanks, where the product was standardized by the addition of disodium phosphate.

I asked Mr. Thompson how much disodium phosphate they used and he stated, "May be very little or none to 15 pounds to the batch," that the average ran about 10 pounds to the batch.

While the product was in the evaporator fish liver oil was added after being mixed in with some coconut oil, as I recollect it was about 6 pints. After the product had been standardized it was then run to the filling machines and filled into then filled cans, after which the cans were run through a sealing machine and they were then placed in the sterilizers where the cans were heated to a temperature of 245 degrees for about 15 minutes, according to the statements of Mr. Thompson.

After the cans had been sterilized they are water-cooled and then run into the warehouse from which they are later on run through the labeling machines and labeled Carolene, Milnut, or Milnot.

Mr. Thompson told me at that time that a few days prior to April 1st they had run a few batches of a new product which was known as Milnot, in which cotton-seed oil was to be used instead of coconut oil.

The Court: Q. Was to be used or was used?

A. Was used. He also stated that Carolene was put out both with coconut oil and with cotton-seed oil and

that the product going into West Virginia and other Southern states would contain cotton-seed oil, while those products which went into Michigan and Chicago would contain cocoinut oil.

I asked Mr. Thompson to furnish me with specimens of the labels that he was now using on the products of evaporated compound milks put out under the name of Carolene, Milnot and Milnut brands. Mr. Thompson furnished me these labels, there being six different labels which I identified with my initials and the date and numbered them from 1 to 6. I also told Mr. Thompson that I desired to secure some investigational samples of the products being manufactured and I collected a number of samples which I submitted to the Chicago station of the Food & Drug Administration.

I asked Mr. Thompson to permit me to look over their duplicate bills of lading containing shipments. Mr. Thompson brought out some records, but he didn't turn them over to me. He read off certain ones and certain ones he didn't. He passed by and gave me a list of some of their shipments. He said, "I suppose you want this information to call on our customers. We don't like this to happen because it annoys them, and they write letters to us."

Mr. Hamstead: Take the witness.

Mr. Matthews: No cross.

(Transcript, p. 257)

Mr. Matthews: There is one other thing that should be stipulated, and I think the Government spoke to me about it, that each of the points of destination named in the counts, the various consignees and places, like Moundsville, and wherever they were, we stipulate that each of those sites was named as destination points in West

John T. Sullivan—Recalled—Re-direct.

Virginia, each point in the count are in the Northern District of West Virginia, whether the Court takes judicial notice of it or not.

. . . . . .

John T. Sullivan—for Government—Recalled—Re-direct:

(Transcript, p. 270)

By Mr. Hamstead:

Q. State your name.

A. John T. Sullivan.

Q. Are you the same John T. Sullivan that heretofore testified in this proceeding?

A. I am.

Q. Mr. Sullivan, I will get you to state whether or not you had a conversation with Mr. Thompson, a witness in this case, relative to were the active heads of the Carolene Products Company during April, 1941.

A. I did.

. . . . . .

(Transcript, pp. 271-273)

Q. I will ask you, Mr. Sullivan, if you had a conversation, and if so, when and where, with Mr. Thompson, a former witness in this case, as to who were the active and directing heads of the Carolene Products Company during April, 1941.

A. Yes.

Q. When and where did you have that conversation?

A. January 13, 1941, at Warsaw, Indiana, at the plant of the Litchfield Creamery Company.

Q. And what was said by Mr. Thompson at that time

and place as to who the active heads or directing heads of the Carolene Products Company were?

Mr. Matthews: I object. It would be entirely immaterial and irrelevant, and—

The Court: It is not necessary to go farther, Mr. Matthews, the objection is sustained. That is two years after the alleged crime in this indictment, and there might have been three or four changes in the active heads in that time.

Mr. Hamstead: Your Honor, my question said—

The Court: Read the question to him and see what it said. "Did you have a conversation in [illegible] as to who were the active heads of Carolene Products Company?"

Mr. Hamstead: That is not what I asked, I beg your pardon.

The Court: Let's read it.

Thereupon, the question was read, as follows:

> "I will ask you, Mr. Sullivan, if you had a conversation, and if so, when and where, with Mr. Thompson, a former witness in this case, as to who were the active and directing heads of the Carolene Products Company during April, 1941."

Mr. Matthews: I am objecting to the question.

The Court: Overruled.

Mr. Matthews: Exception.

A. Mr. Thompson stated that William H. Hartke and Charles Hauser were the officials from whom he received instructions to sign bills of lading for Carolene Products Company.

Mr. Matthews: Your Honor, I want to move to exclude the testimony of this witness for several reasons, the first being they are attempting to impeach their own witness.

Mr. Thompson has testified as a Government witness and made no such statement; in fact, if I read his testimony correctly, it is to the contrary. In the second place, it is entirely immaterial what Mr. Thompson, the manager of the Litchfield Creamery Company, Warsaw branch, said in 1943 as to who did certain things in 1941. Third, even assuming all that to be admissible, the general statement that they directed them in the matter of issuing bills of lading, etc., does not confine it to the product in question. We respectfully submit it is entirely improper and should be stricken.

The Court: Overruled.

Mr. Matthews: Exception.

No Cross Examination.

Mr. Hamstead: Now, your Honor, in the light of the stipulation that the question of venue is stipulated without proof, as I understand it, and if I am not correct I stand to be corrected by Mr. Matthews, the Government rests. That is correct, is it not, Mr. Matthews?

Mr. Matthews: The record speaks for itself.

Mr. Hamstead: With that stipulation, that the defendant admits venue, counsel for the Government rest.

Mr. Matthews: Your Honor, at this point, with the Government having rested, counsel for the respective defendants move for a verdict of not guilty in this case as to all of them and as to each of them separately and respectively.

(Transcript, p. 323)

"The Court: * * * I am, therefore, going to take advantage of the fact that we have no jury, and reserve

my ruling, and at the conclusion of the entire case will want counsel to brief their respective positions on this motion as to the individual defendants. I now overrule the motion as to the defendant Carolene Products Company.

. . . . . .

(Transcript, pp. 324-325)

Mr. Matthews: I would like to state briefly our position. In the first place, the Court has now ruled definitely that the motion to direct a verdict as to the corporate defendant, Carolene Products Company, is overruled, to which the defendants and each of them except.

With reference to your Honor's ruling with respect to the motion for a directed verdict as to the two individual defendants and each of them now I say this with all due deference—the Government has now rested. I recognize the propriety of your Honor in reserving your rulings on evidence being introduced up to the time the Government has rested; in fact, sometimes it is better for everyone concerned that those rulings be reserved in an important matter. However, we feel that the Government having rested, this being a criminal case, if there is any doubt in your Honor's mind as to whether or not the motion and motions with respect to the individual defendants should be sustained, that, in itself, is sufficient to show your Honor that the Government has not proved the guilt of these two individual defendants beyond all reasonable doubt.

Secondly, your Honor's reservation on this ruling means that we shall now be required to prepare our case—which I say is prepared, but we will have to bring into evidence matters which would otherwise be entirely immaterial to the remaining issue, with respect to the positions of the individual defendants in connection with this particular

indictment, and, therefore, on those bases, I most respectively except to the Court's action in not ruling definitely on the motions to exclude and to direct a verdict with reference to the two individual defendants.

The Court: In order to relieve your mind, the court will at this time overrule your motions to direct a verdict for the individual defendants.

Mr. Matthews: May we have our exception, your Honor, on behalf of each of them.

* * * * * * * * * *

Defendants' Witnesses:

Howard J. Cannon—for Defendants—Direct:

(Transcript, pp. 326-329)

By Mr. Matthews:

Q. Will you state your name, please?

A. Howard J. Cannon.

Q. Where is your place of residence?

A. 1411 East Sixtieth Street, Chicago, Illinois.

Q. And what is your profession?

A. I am a consulting chemist, specializing in the field of vitamin analysis.

Q. Now, Mr. Cannon, in order that the Court may have your background, experience and education, I want you to state on the record what that education, experience and background, in the particular field of your present profession, has been and is. It is not for the purpose of flattering yourself, but we want to know the details of that subject matter.

A. My educational background was obtained at Western Reserve University, Cleveland, Ohio, from which college I was graduated in 1924. While at school I majored in

the biological sciences and minored in chemistry. While at school also I developed an interest in biological chemistry, therefore, following my graduation from that university I accepted a Fellowship in Biochemistry at Northwestern University—no, prior to that time I was an assistant instructor and demonstrator in the biological sciences at Western Reserve University for one year, 1925 to 1926. Following that year, I accepted a Fellowship in Biochemistry at Northwestern University Medical School. This Fellowship was sponsored by the Abbott Laboratories of North Chicago, Illinois. The Abbott Laboratories are manufacturers of medicinal chemicals used and prescribed by the medical profession. During the year that I spent at Northwestern University I cultivated a serious and active interest in the subject of vitamin research. At the expiration of that Fellowship in 1926 I joined officially the technical staff.

. . . . . .

At the expiration of my Fellowship at Northwestern in 1926 I joined officially the technical staff of the Abbott Laboratories. My duties at the Abbott Laboratories were varied, but primarily I was engaged in the process of organizing and developing for that company a nutrition laboratory, a laboratory that would be equipped to undertake research problems in the field of nutrition in general, and in the field of vitamin research in particular.

I remained with the Abbott Laboratories until 1932. Now, during the years of my service with the Abbott Laboratories I devoted practically all of my time and attention to an exhaustive investigation of fish-liver oils, which we obtained from various parts of the world. The object of that investigation was to find one or more fish-liver oils of very high Vitamin A and D potency. Up to that time, we had only one dependable source of Vitamins A and D in the form of a fish-liver oil, and that was cod-

liver oil. That particular oil, however, suffered the disadvantage of being too low in potency as far as Vitamins A and D are concerned, and, therefore, it was not entirely practical for a general use, either in the pharmaceutical industry or in food industry. The need for a high-potency oil was therefore apparent at that time.

Well, the result of this extensive investigation of fish-liver oils eventually led to the discovery by myself of one oil that appeared to be outstanding and was definitely the type of oil that we were looking for, and that oil was identified as halibut-liver oil.

. . . . . .

(Transcript, p. 332)

The Court: All right. Now, gentlemen, I want to shorten this matter. I know this gentleman by reputation. I am satisfied of his qualifications. He is one of the outstanding men in the country.

Mr. Hamstead: Your Honor, I think the Government can concede that.

. . . . . .

(Transcript, pp. 332-338)

Q. Mr. Cannon, in view of the statements that have been made we will proceed directly to other matters than your experience, foundation, education, etc. Basing your answer upon your experience in the field of nutrition, I will ask you to state to the Court what are the nutritional factors that go to make up a complete diet for the human being.

Mr. Reno: If the Court please, the Government objects to this as being incompetent, irrelevant and immaterial; in tending to prove or disprove any issue in this case or to present a defense to the charges contained in the indictment; as tending to present evidence insufficient in law

to present a defense; as an attempt to contradict those known facts of which the Court must and will take judicial notice; as an attempt to present evidence which would induce the Court to invade the province of the Congress by substituting its judgment for that of the Congress; that the matters which this testimony would tend to prove have previously been excluded by this Court from its consideration by its ruling on the defendants' demurrer, motion to quash and plea in abatement; that the product before this Court is not milk. It has the characteristics of milk in appearance, taste, uses, consisteney and color. It is packaged as the genuine article is packaged. Since it is composed of skimmed milk to which a fat foreign to milk is added and by blending and homogenization the resultant product is in semblance of evaporated milk. It is capable of being sold as milk, and, therefore, falls within the statutory ban. The question and the answer sought to be elicited thereby is and are objected to for the above reasons, and for the further reasons stated in the Government's brief in opposition to defendants' demurrer, motion to quash and plea in abatement, heretofore filed herein.

Mr. Matthews: Your Honor please, may I ask the indulgence of the Court with the suggestion that Mr. Kaufman be permitted to state the defendants' position in view of this objection?

The Court: Yes.

Mr. Kaufman: If the Court please, it is our purpose to show through this witness that in 1923 the information and knowledge of scientists with respect to vitamins was comparatively unknown; that since 1923 great development and great strides have been made in the knowledge, science and art, of the use of vitamins. It is our purpose to show through this witness that between 1926 and 1932 he discovered that halibut liver oil was a conductor of high potency content vitamins; that, beginning in 1932 and

thereafter, vitamins were begun to be used commercially as fortifications for various types of food, including flour, margarine, cereals, bread, and some of the most important factors in human nutrition, including fortification of evaporated milk itself.

It is our purpose to demonstrate, from the item to which Mr. Reno referred, that the Court will take judicial notice—I assume that he referred to the Congressional Record, in connection with the passage of the Filled Milk act of 1923. A reading of the record demonstrates that the rationale of the statute, the rationale of Congress, in connection with the passing of that legislation was that by the elimination or the extraction from whole milk of the butter-fat that it carried with it the fat-soluble vitamins which were then known as Vitamins A and D.

It is our purpose to show through this witness that, as a result of the advent of medical science, the Vitamins A, the fat-soluble vitamins, have been fully restored to the product and that, therefore, the statute does not apply to our product, and that, if it is held to apply to the product, such holding is unconstitutional.

We expect to prove through this witness and other witnesses that the finding of the Congress that our product, if the law is held to apply to it as being an adulterated article of food and injurious to the public health, is without reason; in fact, it is our purpose to demonstrate by this witness and other witnesses that the product shipped by the defendant Carolene Products Company is a wholesome, nutritious and beneficial, article of food, that the finding of the Congress is without reason, in fact and in law, as applied to the present product which was begun to be manufactured and distributed in 1937.

The Court: This court has said what it thinks about these propositions, which were raised on the former motion, in a memorandum filed in this case, marked No. 9, under date of December 4, 1942, and the order entered by

this court in pursuance to that memorandum under date of December 4, 1942, marked in the file of this case as No. 8. In other words, papers Nos. 8 and 9 comprise what the court thinks and the order entered thereon. I could at this point read the memorandum and the former order, but I believe it is sufficient to just refer to them as the memorandum of the court and the order entered by the court thereon.

I will say, in passing, that what counsel has just said, their position is, as I see it, that they are asking this court to take the place of an act of Congress. Congress has said what filled milk is, and it is further declared that filled milk, as herein defined, is an adulterated article of food injurious to public health, etc. That was the position of this court on your former motion, and it is the position this court will take in the trial of this case. I fully realize that you gentlemen have a perfect right to, and I want to see you make your record in full. I will sustain the objections to this class of testimony, and you may go on.

Mr. Kaufman: May I just make one additional suggestion to Your Honor, and that is, we do not ask the Court to substitute its discretion for that of Congress. We inferentially claim that at the time of the passage of the Filled Milk act this product now shipped by the Carolene Products Company was not within the contemplation of Congress, because a reading of the Congressional Record demonstrates that the finding of fact declared in the statute itself is predicated upon the finding by Congress, that the elimination of the fat-soluble vitamins, notably A and D, extracted when the butter-fat is extracted from whole milk, takes away from the resulting product something that is necessary to human nutrition.

It is our purpose to demonstrate that, as a result of the advent of medical science, there has been restored to the product, by the infusion into it of Vitamins A and D,

everything that Congress had in mind at the time of the passage of the statute, and, therefore, Congress could not have contemplated our particular product, and in accordance with the decision of Mr. Justice Stone, 304 U. S., where he said, when the matter came up on a demurrer, that facts may be shown that conditions have changed since the passage of the original Filled Milk act. That is precisely what we are attempting to do.

We understand Your Honor's ruling. We know that Your Honor is consistent about it, but all that we are attempting to do now is to preserve and make the record.

The Court: Which you have a perfect right to do, and we are not unmindful of the fact that the personnel of the Supreme Court of the United States has been changed since the 304 U. S.

Now, gentlemen, in order to shorten this record and save time, might it not be understood that the United States representatives object to each and every particle of evidence that you are now seeking to put in and that the court sustains their objection to all questions on this line, to which counsel for the defendants except?

Mr. Reno: We have no objection to that, Your Honor.

The Court: That will let you, Mr. Kaufman and Mr. Matthews, go right on and put your evidence in.

Mr. Matthews: Your Honor, I think that is a very admirable suggestion. In the first place, it will save a great deal of time, and I take it that the defendants agree that it is understood that every question that we ask—and I am speaking with reference to this objection, the grounds for which have been stated—that with respect to every question that is asked there is assumed to be an objection made by the Government, sustained by the Court, and exception saved by the defendants. In that way, we can proceed right straight through and make this proffer with that understanding, and that includes,

I take it, our exception to this last ruling of the Court to the question.

Mr. Hamstead: The Government joins in that, Your Honor. I notice Mr. Matthews limited his statement, and properly, to the grounds which were set out here. If something else should occur, of course, we would like to object on additional grounds.

. . . . . .

(Transcript, p. 339)

May we have our exception?

The Court: Yes.

. . . . . .

(Transcript, pp. 340-341)

The Reporter: (Reading)

"Basing your answer upon your experience in the field of nutrition, I will ask you to state to the Court what are the nutritional factors that go to make up a complete diet for the human being?"

A. A complete dietary, one that should include fat, carbohydrate, protein, mineral matter, water and vitamins.

Mr. Matthews: Q. I will ask you please to state to the Court what nutritional factors are to be found in water which is one of these factors that you have just named?

A. The only factor in water is water.

Q. Pardon me?

A. I don't believe I quite understand your question, Mr. Matthews.

Q. Well, I am sorry. What are the nutritional or is the nutritional purpose of water?

A. Water is extremely essential to life. Among its functions are:

First, it acts as a vehicle for the transport of food materials to the tissues and for the removal of waste materials from the body;

Secondly, water represents the medium in which chemical reactions in the body occur.

Q. Will you please state to the Court what are the nutritional purposes of protein, and what is protein?

A. Proteins are nitrogenous food-stuffs that are essential to life for the building and repair of tissues.

. . . . . .

(Transcript, pp. 341-353)

Mr. Matthews: You used one word that most of us know nothing about, "nitrogenous"?

A. "Nitrogenous" is an adjective, referring to food materials that contain the element nitrogen.

Q. Thank you. Had you completed your statement as to proteins?

A. Yes.

Q. As to their nutritive purposes?

A. Yes.

Q. Now, you have another element or factor that you have named as one of these factors in the complete diet for a human being, namely, carbohydrates. Now, try to explain the term itself and then its nutritional angle?

A. Carbohydrates are sugars and starches, and they serve as a source of heat and energy for the body.

Q. The next factor that you have named or one of them not yet discussed, are fats. What purpose do they serve in the nutritional scheme of things?

A. Fats provide an additional source of heat and energy to the body, and furthermore fat is stored in depots underneath the skin.

Q. What do you mean by "depots"?

Howard A. Cannon—Direct.

A. Depots are just places of storage. Fat in those places of storage serve as an insulating material to protect the body against extreme cold and extreme heat.

Q. The next factor you named is mineral matter?

A. Mineral matter includes such elements as calcium, phosphorus, iron, copper, iodine, and sodium.

The function of minerals in the body is many-fold. In the first place, they contribute to the structure of hard tissues, such as bones and teeth. That is, without suitable mineral elements the hard tissues would lose their normal strength and rigidity. They also contribute to the repair of broken bones.

Another important function of minerals is that they help to build red blood cells. Without certain minerals the individual would become anemic as a result of a loss or decline in red blood cells.

Minerals also protect the individual against certain deficiency diseases, one of the most common being nutritional anemia. Another one with which most of us are familiar is goiter.

Finally, minerals play a rather important role in bringing about normal coagulation of blood. They also tend to play a part in regulating normal blood pressure and heart function.

I believe that is all on the subject to minerals.

Q. You may have mentioned it, but I do not recall having heard you say anything about it. What, if anything, have minerals to do with the disease of which we commonly speak of as rickets?

A. Well, rickets is a disease characterized by the withdrawal or removal of calcium from hard tissues, such as bone, that is, rickets in its active stages produces a condition where the bones lose their hardness and rigidity, and become rather elastic and flexible, and distorted. Rickets may be described definitely as a calcium deficiency disease.

Q. The next and last element or factor that you have named as one of these nutritional factors necessary to make up a complete diet for the human being is vitamins. What have you to say about that?

A. Vitamins may be defined generally as complex chemical compounds that are found in various food-stuffs and are essential to life and for the maintenance of good health.

More specifically, vitamins serve to protect individuals against certain deficiency diseases, the most common ones being scurvy, rickets, pellagra, beriberi, and night blindness.

All those diseases that I have mentioned are due specifically to the lack in the dietary of one vitamin or another, and those diseases incidentally can be cured or remedied by including in the dietary the required vitamin or vitamins.

Q. Mr. Cannon, I want to refer back a moment to the disease described as rickets. You describe it as a calcium deficiency disease in substance. What relation does Vitamin D have to rickets, if any?

A. Well, under normal conditions, that is, where the dietary of an individual is complete and contains all of the factors that I have mentioned, including vitamins, the factor known as Vitamin D plays a very important role in mobilizing calcium to the tissues where calcium is urgently needed, those tissues being bones and teeth.

Now, if an individual, such as a child or an infant, is deprived of Vitamin D, the power of the body to effect proper mobilization of calcium as well as phosphorus to the bones and teeth is lost, and hence the bones do not receive a sufficient amount, if any, of the calcium and phosphorus they need. Instead of that, calcium and phosphorus are withdrawn from the bones and eventually a condition called rickets is definitely established.

Q. I observe that fats have been placed in a definite

category from the vitamins in your statement. Are their nutritive properties different?

A. Their nutritive properties—well there seems to be very little that the two factors have in common.

I have already explained previously what the function of fats is and likewise I have explained what vitamins are, so that will serve to answer this present question.

Q. I am sure it does. I think, perhaps, the question may have been unnecessary. What are the source of vitamins?

A. Briefly, the sources are, first, various foodstuffs; second, concentrates, such as cod liver oil concentrated and concentrates derived from yeast; third—

Q. May I interrupt you a moment there. Do you limit it to cod liver oil?

A. No. That is only a single example, that is, concentrates may also be manufactured from all types of fish liver oils.

Q. All right, thank you.

A. The third source of vitamins is the pure synthetic vitamins that are man-made and can be manufactured in the laboratory.

Q. Will you give examples, please?

A. Examples of the pure synthetic vitamins are thiamine hydrochloride, which is commonly known as Vitamin B_1, ascorbic acid, which is commonly known as Vitamin C, niacin, also known as nicotinicacid, and which is the anti pellagra factor.

Q. Thank you. What foods are fortified with vitamins that you know of and we all know of—if we all do know them? Can you mention some?

A. Yes; there are quite a number. I shall only mention a few more common foods.

Q. Thank you, sir?

A. Whole fluid milk, evaporated milk, the whole—or powdered whole milk, cereal products, including flour and

bread, and infant foods. There are others, but those I have mentioned would represent the more important ones.

Q. I understand you are speaking of the staple foods that are generally known?

A. Yes.

Q. Does that include oleomargarine?

A. I have neglected to mention oleomargarine. That should be included among the more important foods.

Q. Mr. Cannon, can you state to the Court whether or not there are general sub-divisions with respect to vitamins, and, if so, what the general descriptive terms are of each sub-division? I am speaking with reference to solubility?

A. Well, for convenience sake, we frequently like to use the expression water-soluble vitamin or fat-soluble vitamin. Vitamins in general differ as to their solubility in water or in a fat medium. Samples of fat-soluble vitamins are Vitamins A and D. Those factors are soluble in fat and oil but are insoluble in water.

Examples of water-soluble vitamins are Vitamin B_1 and C, which factors can be dissolved in water but cannot be dissolved in a fat or oil medium.

Q. Mr. Cannon, where is Vitamin C principally found? From what source?

A. Citrus fruits.

Q. By that, you mean such as oranges, lemons, and so forth?

A. That is correct.

Q. With respect to Vitamin B_1 that you have mentioned what is—let us speak of it as the common source?

A. Well, Vitamin B_1 is found widely distributed in nature. One of the most common sources of Vitamin B_1 is cereal grains, such as wheat, oats, and barley.

Q. Now, Mr. Cannon, you have given the two general classifications of vitamins as being fat-soluble vitamins and water-soluble vitamins. Will you explain to the Court, if you will please, how the fat-soluble vitamins

and the water-soluble vitamins are distributed in milk, please?

A. For the most part, the cream fraction of whole milk will carry fat-soluble Vitamins A and D. The skimmed milk fraction, on the other hand, carries the water-soluble factors, such as Vitamin B_1 and B_2, niacin, a trace of C and pantothenic acid to a certain extent.

I might also add in that connection, in order to complete the answer, that Vitamins A and D in the cream can be partially dissolved in the skimmed milk fraction, that one may find a trace of Vitamins A and D in the skimmed milk fraction because milk is an emulsion, so there is not a very clean break between the cream fraction and the skimmed milk.

Q. Mr. Cannon, where is and what is riboflavin? Perhaps I don't pronounce it correctly—riboflavin. Where is its most common source?

A. The most common source of riboflavin, and I can also add one of the best food sources of riboflavin, is the skimmed milk fraction of milk.

Q. Does that have the chemical designation of B_2?

A. It is otherwise known as Vitamin B_2.

Q. Mr. Cannon, what is the nature of the operations of your laboratory?

A. The activities of our laboratory are confined to making vitamin analyses of foods, foods, fish-liver oils, and a great variety of pharmaceutical preparations for manufacturers of these products that I have mentioned.

Q. In your statement of foods, do you include the element of milk, the food commonly described as milk?

A. Yes. We are called upon to test numerous samples of milk.

Q. Proceed, Mr. Cannon.

A. Now, in conducting the vitamin analyses in our laboratory we use two general methods.

The first method may be defined as biological, that

is, we use experimental animals as a means to an end, the end being the evaluation of the vitamin content of a product under test.

Secondly, we employ chemical methods of assaying, that is, where experimental animals are not at all used, and a chemical method of assay may be defined simply as a test tube experiment.

Q. Mr. Cannon, for what kind of companies have you and do you perform experimental work in your laboratory as you have described that work?

A. Well, our clientele consists of food manufacturers, pharmaceutical manufacturers, and producers of fish-liver oils and poultry and cattle feeds.

Q. Do you object to stating the names of some of the more outstanding firms or corporations for whom you have performed this work?

A. Well, we won't attempt to name them all, but I will be glad to mention a few typical examples.

Q. Thank you?

A. Among food manufacturers we serve clients such as the Kraft Cheese Company, General Mills, Incorporated, and the Pillsbury Flour Mills. Among pharmaceutical manufacturers we serve Mead, Johnson & Company. They are manufacturers of a popular product known as Dextri-Maltose.

Q. How do you spell that?

A. D-e-x-t-r-i-M-a-l-t-o-s-e. Dextri-Maltose, incidentally, is a baby food. We also serve the Abbott Laboratories among the pharmaceutical manufacturers.

As far as fish-liver oil producers are concerned they are not very well known to the general public, but one of our best clients in the field is the Van Camp Seafood Company of California who, in addition to producing fish-liver oils also produce tuna fish packed in cans for distribution throughout the country.

Q. Thank you sir. Now, do you as well also conduct

assays of vitamin-fortified milk, such as fluid milk or evaporated milk?

A. Yes. We conduct many tests on Vitamin D milk. We do not conduct very many assays, however, on evaporated milk.

Q. You have conducted some?

A. On occasions we have.

Q. I will ask you whether or not you have conducted any such assays on vitamin-fortified milk, such as fluid milk and evaporated milk for any states in the Union, and if so what states?

A. Yes. We have been called upon from time to time to conduct Vitamin D assays of Vitamin D milk produced in the states of Illinois, Michigan, Indiana, and Wisconsin. The tests, incidentally, were conducted for the state and not for the dairies whose samples of milk we tested.

Q. Thank you. In the course of your work have you ever had the occasion to test a product identified as Milnut?

A. Yes, over a period of years I can say that we have examined and tested quite a few samples of Milnut.

Q. Will you state to the Court the results of your tests of that particular product? In other words, what did you find was the composition of the product named Milnut?

A. Milnut is or was composed of evaporated skimmed milk, refined coconut oil, and a high potency fish liver oil.

Q. I will ask you whether or not the tests that you made of the product which I have described as Milnut were the product sold, at least, by the Carolene Products Company?

A. Yes. All the samples we tested were clearly marked Milnut, and there was also the statement on one part of the label that the product was manufactured by the Carolene Products Company, Litchfield, Illinois.

Q. Mr. Cannon, I hand you here a can which has been introduced in evidence as Government Exhibit 29 and Count 4 appears on the can. I will ask you to look at it and state to the Court whether or not the sample or samples which you examined and tested is the same product that is contained in the can that you have in your hand?

A. Yes.

Q. I will ask you to state over what period of years you have made the test of Milnut or Milnot, or both?

A. We first began testing Milnut in 1934. At that time Milnut was available on the market but not Milnot, but we have been testing either Milnut or Milnot for a period of eight or nine years.

Q. What tests have you conducted on Milnut since 1940?

A. We have conducted——

Q. During that year also?

A. We conducted in that year Vitamin A and D assays of several samples of Milnut.

Q. And did you as well also have occasion to test the same product, namely, Milnut for Vitamin B, and Vitamin C and riboflavin?

A. Yes.

Q. Will you state to the Court what your findings were with reference to Vitamins A and D and the water-soluble vitamins?

A. The samples of Milnut we tested, each showed a Vitamin A content in excess of 2,000 units per can or per 14½ avoirdupois, United States—

. . . . . .

(Transcript, pp. 354-355)

Q. Let me ask you, Mr. Cannon, whether or not there is any substantial difference in your findings of cans purchased by you in 1941, 1942, or 1940?

The Court: You used the word "purchased."

Mr. Matthews: I believe he did purchase them. The word is "tested."

A. All samples tested in the years that have been mentioned showed approximately the same vitamin content, and invariably the claims made for Vitamins A and D on the label of Milnut or Milnot were always confirmed in our assays of all samples we received at that time.

The Court: May I ask from what source you derived the samples that you tested?

A. Well, we have always followed the policy of purchasing—

The Court: I don't care about your policy. I want to know what you did in these instances.

A. Well, in these instances we purchased samples of Milnot or Milnut in sealed cases from wholesale grocers in such communities as Chicago, Wichita, Kansas, and St. Louis, Missouri, to mention only three.

These shipments incidentally were made to us by the wholesale grocers in the three communities via railway express. The shipments reached us intact. Upon opening the cases, we found in each case 48 cans of Minut or Milnot—whichever brand we happened to order at the time.

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(Transcript, pp. 355-374)

The Court: Thus far you have spoken of samples purchased and tested in the year 1940. Is that right?

A. That is correct, but I believe Mr. Matthews included the years 1941 and 1942 as well.

Mr. Matthews: That is correct, and your answer applies to the tests made in all three years.

A. Applies to all three years; that is correct.

Q. I believe you proceeded with your answer to the point of stating that in each instance—if I am not correct, correct me—that you found in excess of 2,000 U. S. P. units in each sample 14½ ounce can?

A. Yes.

Q. I will ask what you mean by U. S. P. units?

A. Well, U. S. P. is the abbreviation for United States Pharmacopoeia. The United States Pharmacopoeia is a book that is officially recognized by the Government and lists all drugs and medicinal chemicals that are recognized by the medical profession. The same book also includes methods of analyses and standards for the drugs and chemicals so listed.

Q. All right, sir. Mr. Cannon, what will you say with reference to your findings as to the Vitamin D found in each of the samples of Milnut or Milnot?

A. Each sample—

Q. Just a minute. We will confine it to Milnot?

A. Yes. Each sample of Milnot we tested showed an excess of 400 U. S. P. units of Vitamin D per 14.5 avoirdupois ounces.

Q. There was some misunderstanding. Do you mean that you found in excess of these 400 and 2,000 U. S. P. units of Vitamin D and A, respectively? Is that what you state?

A. It can be worded in another way by saying we found at least 2,000 units of Vitamin A and at least 400 units of Vitamin D per can.

Q. What do you say with reference to the findings in your assay of Milnut as to the water-soluble vitamins being present?

A. The question is confined to Milnut?

Q. I will confine it now to Milnut?

A. We found that each fluid ounce of Milnut contained 6 International Units of Vitamin B_1, 11 International units of Vitamin C, and 43 units of riboflavin, or Vitamin B_2. Now, those figures represent the amounts present in each fluid ounce of Milnut.

Q. What have you to say with reference to whether or not that finding with reference to water-soluble vitamins present in Milnut as compared to the finding of the water-soluble vitamins in the same quantities of whole milk assayed or examined by you?

A. The three water-soluble factors I have just mentioned, namely Vitamin B_1, Vitamin C, and riboflavin, are found in the skimmed milk portion of whole milk. Therefore, the figures I have quoted for Milnut with respect to these three factors would be present in the same proportion in an equivalent amount of milk or whole milk from which the Milnut was derived.

Q. That is not quite clear?

A. Perhaps I didn't understand your question fully.

Q. Perhaps I didn't explain it. Will you read the last question?

(The question and answer were thereupon read by the reporter.)

Q. That is clear to me now. Thank you very much. You spoke a while ago of Vitamin B_1, and you used the expression "International units" of B and C. What do you mean by "International units"?

A. That International unit of Vitamin B_1 represents the Vitamin B_1 activity of a specific amount of pure thiamine hydrochloride, that amount being 3.3 micrograms of thiamine hydrochloride.

Q. Now, Mr. Cannon, have you in the years 1940, 1941, and 1942 made tests for the purpose of determining the

composition of the product known as Milnot as distinguished from Milnut?

A. In that period of time we did, yes.

Q. Will you state to the Court the finding that you made with reference to vitamins and so forth in your assays of Milnot as distinguished from Milnut made during those three years or three-year period?

A. Our findings with reference to Vitamins A and D were the same as those mentioned for Milnut, namely, that each sample contained at least 2,000 U. S. P. units of Vitamin A and at least 400 U. S. P. units of Vitamin D per can. We also tested Milnot for Vitamin B_1, riboflavin, niacin, and pantothenic acid, and obtained the following results:

Each fluid ounce of Milnut was found to contain 18 micrograms of Vitamin B_1, 112 micrograms of riboflavin, 69 micrograms of niacin, and 207 micrograms of pantothenic acid.

At this point I would like to explain to the Court what the meaning of the term "micrograms" is. The term "microgram" is another way of saying parts per million, that is, one microgram represents one-millionth of one gram. To better understand the significance of one gram, I may say that one avoirdupois ounce contains 28.5 grams, so that a microgram in itself is an infinitesimally small amount.

Q. Will you state to the Court that insofar as the vitamin content is concerned, we have been confining ourselves to that up to this point, in the two products, Milnot and Milnut, whether the vitamins A and D, or the water-soluble vitamins is for all intents and purposes the same in the two products?

A. In general I would say yes.

Q. And is the difference of any importance chemically or nutritionally?

A. I didn't hear the question?

Q. —if any there may be between the two samples of any importance nutritionally or chemically?

A. To all practical purposes there is no difference.

Q. Now, Mr. Cannon, are you able to state to the Court what vitamins were known to exist in 1923?

A. Our knowledge at that time was rather meager. We knew of the existence of Vitamin A, which at that time was identified as a growth promoting factor, an antiophthalmic factor and an antirickets factor.

Q. What is the antiophthalmic factor?

A. The antiophthalmia was applied to that vitamin at that time because it had the power to protect animals against an eye disease called xerophthalmia.

Then, in addition we had Vitamin B, which at that time was identified as the antiberiberi factor, and others called it the antineuritic factor.

Third, we had Vitamin C, which generally was called the antiscurvy factor.

That was the limit of our knowledge of vitamins in 1923.

Q. Since that time, I will ask you whether or not Vitamin A, as it was then known and understood by scientists and physicians and surgeons, has been broken down into two parts, and if so what were they?

A. Well, subsequent to 1923 it was established that Vitamin A was not a single vitamin, but a complex consisting of two distinct factors. After the discovery was made we changed the nomenclature so that the one factor was called Vitamin A that was still a growth-promoting factor as well as an antiophthalmic factor, but the second factor, which was split off from Vitamin A originally, was identified as or was named Vitamin D, and that was also referred to as the antirickets vitamin.

Q. Mr. Cannon, will you state to the Court how the Vitamin B in the Milnot and Milnat samples that you have described as having assayed, compare with the content of this Vitamin B in evaporated milk, if you know?

A. The Vitamin B content of a product such as Milnot and Milnut would be at least equal in potency to the Vitamin B content of evaporated milk. If anything, it might even be about 10 per cent higher.

Q. Have you any reason for that last statement?

A. The reason being that the percentage of milk solids not fat in Milnut or Milnot is usually 10 per cent higher than the same material found in evaporated milk.

Q. Would the answer that you have just made be equally applicable to other water-soluble vitamins other than B?

A. The same statement could apply equally to other water-soluble factors.

Q. When you speak of B, are you including B_1 and B_2?

A. When I speak of B I refer to a complex which includes, among other vitamins, Vitamins B_1 and B_2.

Q. Mr. Cannon, in 1923, you have stated to the Court certain things with reference to the knowledge of science. Will you state to the Court what was the richest known source in 1923 of Vitamins A and D?

A. Cod liver oil.

Q. Can you state to the Court whether or not there were foods, to your knowledge, which in 1923 were fortified with Vitamins A and D from cod-liver oil, or prior thereto?

A. There were none, because at that time the food industry did not recognize the need or general idea of fortifying foods with vitamins. That idea was developed at a much later date. So, to my knowledge, there were no foods fortified with cod liver oil.

Q. I will ask you to state whether or not there were any other reasons that you know of, other than the absence of knowledge as to the need of fortification of foods with Vitamins A and D, which resulted in those particular vitamins not being used to fortify food products in 1923 and prior thereto, besides that of need.

A. In those early days, the cod liver oil available on the market had a very disagreeable flavor and odor, and

it would have been most practical for a food manufacturer to incorporate a foul-smelling oil—

Q. Did you say practical or impractical?

A. Impractical. It would have been impractical for a food manufacturer to incorporate a foul-smelling and tasting oil in a wholesome palatable product. Another reason for the impracticability of adding cod liver oil to food products was the exorbitant cost of cod liver oil. By adding the oil to a food product with the idea of stepping up the Vitamin A and D content of the product, it would, at the same time, have increased the cost of the product beyond all reason, so the general idea of fortification at that time was most impractical.

Q. Now, since 1923, will you state what has happened in that particular matter, as a result of which such fortification has been made possible and practical?

A. Well, pursuant to 1923, and that covers a period of maybe ten or thirteen years, inexpensive processes of concentrating cod liver oil and other fish-liver oils were developed. At the same time, we discovered new and much richer sources of Vitamins A and D in the form of fish-liver oil, such as halibut liver oil, tuna liver oil and shark liver oil. The concentrates that I have mentioned, as well as these high potency fish-liver oils, are reasonably inexpensive and within the means of most food manufacturers who intend to fortify their products with Vitamins A and D; that is, the cost of fortifying products with those two vitamins is very inexpensive at the present time.

Q. May I ask you whether or not anything has been done since 1923 to make more palatable these combinations, or the use of fish oils in fortification of foods and, if so, how?

A. Well, the processes of manufacture of concentrates and fish-liver oils has developed to a very high degree, so that the end products today, at the very worst, have a

mild fishy flavor and odor; and, furthermore, these high potency products are incorporated in foods in very minute amounts, so, even if the fortifying agents do have a mild fishy flavor and odor, those undesirable characteristics are not imparted to the food products.

Q. When you speak of the reduction in cost, do you mean the cost of the manufacture only, or do you include that there has been a very substantial reduction in cost of the fortified food article to the consumer as well?

The Witness: I wish that question were re-stated. I don't quite grasp it fully.

(The question was thereupon read.)

A. Well, that's a rather general question, but I can state that the fortification of a food product with a high potency Vitamin A and D oil, in many cases, does not increase the cost of the fortified food to the consumer. The general cost of the fortification is rather insignificant, and in most cases the manufacturer can well afford to absorb the extra cost himself without increasing the cost of the finished product to the consumer.

Q. In other words, in that last statement, is it correct to state that, in your opinion, the consumer gets a better product for the same price?

A. Decidedly.

Q. Mr. Cannon, at the beginning of your testimony, you made a statement that your laboratory is called upon to test various fish-liver oils. That is correct, is it not?

A. Yes, sir.

Q. Will you state to the Court where and by whom are these oils produced?

A. These oils are produced in the United States and Canada, at the present time, at least, by companies that may be described generally as fisheries.

Howard J. Cannon—Direct.

Q. In a general way, will you please state how these oils are rendered?

A. The fish has to be caught first. The livers are then removed from the fish. The oil contained in the liver is then removed by one of three processes. One process may be solvent extraction, that is, oil is soluble in certain solvents, such as ether or chloroform or acetone, so those chemical agents I have just mentioned are solvents, that may be used in dissolving out the oil contained in the liver. Another common practice in rendering oil from livers is by steaming the livers. A third process is one in which the oil is expressed or pressed out from the livers under very high pressure. But, irrespective of the method employed in rendering the oil, the finished product is invariably a clean oil, contains a high quantity of Vitamins A and D, and is in every way fit for human consumption. I believe that answers your question.

Q. Yes, sir. So far, your testimony has been confined to matters relating to the vitamins. Can you state to the Court, in a general and brief way, what, if any, distinction, insofar as content is concerned of substance, there is, based upon your assays of the two products made in '40, '41 and '42, between Milnut and Milnot, and I am going now beyond the field of Vitamins A and D, etc.

The Witness: You are referring to the nutritive efficiency of the two products?

Q. No, referring to the actual physical composition; in other words, whether or not there are any vegetable fats and, if so, whether they are the same.

A. Oh, I understand. Well, Milnut, as I explained previously, is made up of evaporated skimmed milk, refined coconut oil and high potency fish-liver oil. Milnot, on the other hand, is identical with Milnut except that the oil used in Milnot is refined cotton-seed oil rather than refined coconut oil.

Howard J. Cannon—Direct.

Q. There is some question asked, some difference, perhaps, between counsel, on whether or not the question has been asked and answer thereto made—from your assays of these two products, Milnut and Milnot, during those years that I have mentioned, '40, '41 and '42, can you state whether or not there is any substantial or material difference in the vitamin content of the two products?

A. Practically none at all. They are about the same.

Q. And I will ask you whether or not the only difference, if it be a difference, in fact, with reference to the other content of the respective products, is that in Milnut coconut oil is used, whereas in Milnot cotton-seed oil is used.

A. Yes, that is the only difference.

Q. Have you ever seen samples of the high potency fish-liver oil used as an ingredient in Milnot and Milnut?

A. Yes, I have seen quite a number of those samples.

Q. Have you examined them?

A. Yes, I have tested those oils for their Vitamin A and D content.

Q. From your examination of the samples of this high potency fish-liver oil used in both of these named products, can you say whether or not the oil used is of a high quality?

A. According to the standards in the trade, those oils would be regarded as being of very high quality.

Q. What is the name, if you know, of the producer that supplies the high potency fish-liver oils to the Carolene Products Company, and which oils are used in its products, Milnut and Milnot?

A. Atlantic Coast Fisheries Company of New York City.

Q. Will you state to the Court what you know about that company and its product?

A. My laboratory has had business relations with that company for a period of approximately ten years, and in

that time we have had an opportunity to convince ourselves that the company ranks among the best of the fisheries engaged in the production of fish-liver oils. The standards of that company are high, and they invariably endeavor to produce high-quality fish-liver oils for sale to their various customers.

Q. Mr. Cannon, what comments can you make regarding the physical quality and characteristics of these fish-liver oils used by the Carolene Products Company, or, rather, found in the products shipped by the Carolene Products Company, namely, Milnut and Milnot, color, odor, and so forth?

A. We in the trade, before we begin a test of any kind of a fish-liver oil, have acquired the habit of testing, smelling the oil, and holding a sample of oil up to the light to find out how clear and transparent the oil might be. With respect to the oils made by Atlantic Coast Fisheries Company, and including those that are sold to the Carolene Products Company, I can say on the basis of our observations that the oils are clear and transparent, and have a mild fishy flavor and odor, and that we rarely find a sediment in the oils.

Q. Mr. Cannon, you have stated what a gram constitutes, by comparison with other quantity. Can you state to the Court the Vitamin A and D content per gram of the fish-liver oil used in these products, Milnut and Milnot?

A. The oil contains 150,000 units of Vitamin A, and 30,000 units of Vitamin D per gram.

Q. Does the presence of fish-liver oil in Milnot and Milnut impart a fishy flavor or odor to either one of these products?

A. The answer is no, because a very minute amount of the oil is added per can of milk. As a matter of fact, it would take about 1/75th of one gram to fortify the—that is, to fortify Milnot or Milnut so that the finished product would contain 2,000 units of Vitamin A and 400 units of Vitamin D per can.

Q. A 14½ ounce can?

A. Yes. So that the presence of the fish-liver oil in the finished product is not detectable by taste or smell.

Q. Can the fish-liver oil that we are speaking about be introduced into Milnot or Milnut with assurance of obtaining a uniform distribution of the fish oil?

A. That is a comparatively simple problem, and from our experience in testing numerous samples of Milnut and Milnot we know that the process employed in fortifying those two products with fish-liver oils results in a uniform distribution of the fish-liver oil throughout the finished product.

Q. Has the result of your assays been such as to form the basis of your latest or last general and decisive statement?

A. Yes, the fact that we invariably find at least 2,000 units of Vitamin A and 400 units of Vitamin D per fourteen and a half ounces of the product is sufficient proof that the dispersion of fish-liver oil in Milnut and Milnot is uniform.

Q. Mr. Cannon, you have previously testified that the ingredients of Milnut and Milnot included coconut oil and cotton-seed oil, respectively. What would you say as to the nutritive value of these oils?

A. The nutritive value of the two oils is about the same. With respect to digestibility of the two oils, there is very little difference, and both oils are assimilated by the body to about the same degree.

Q. Do either or both of them contain Vitamins A or D?

A. Both oils are devoid of Vitamins A and D.

Q. In view of your statement that, as I understand, there is no reasonable difference between the two from a nutritive standpoint—is that correct?

A. In a general way that's correct, and in particular, with respect to Vitamins A and D, both oils lack Vitamins A and D.

Q. Aside from that, is there any substantial important difference between the use of coconut oil and cotton-seed oil?

A. I can see none.

Q. I will ask you whether or not each of them are wholesome products.

A. The answer is definitely yes.

Q. I will ask you whether each of them are nutritious.

A. Yes.

Q. I will ask you whether either of them, in any way whatsoever, are injurious to public health.

A. On the basis of my observations with either oil, I have never seen any deleterious effects resulting from the consumption of coconut oil or cotton-seed oil in the refined state.

Q. And are either of them injurious to public health?

A. Neither one is injurious to public health.

Q. With respect to skimmed milk, which you have testified is an ingredient of both Milnut and Milnot products, what would you say as to the nutritive value of skimmed milk?

A. I have always regarded skimmed milk as being the most nutritive fraction of whole milk, the reason being that skimmed milk contains the water-soluble vitamins, it contains the valuable protein, in fact, all of the protein that is found in milk, and, last but not least, it contains numerous minerals, such as calcium, which are essential to life; in fact, skimmed milk happens to be one of our best and most reliable sources of calcium. These factors that I have mentioned are not present in the milk fat but are confined primarily to skimmed milk.

Q. Does skimmed milk contain Vitamins A or D?

A. Practically none at all.

Q. I will ask you whether or not, in your judgment, skimmed milk is a wholesome food.

A. It is a wholesome food in every sense of the word.

Q. Is it nutritious?

A. It is.

Q. I will ask you whether or not skimmed milk is injurious to public health.

Mr. Reno: Just a minute. Do you mean in his opinion?

Mr. Matthews: In your opinion, certainly. All of these are in your opinion. I don't mean anything else.

A. In my opinion, skimmed milk is not injurious to public health.

Q. In your opinion, I will ask you whether or not a food can, at the same time, be wholesome and nutritious, and injurious.

A. Yes, that is possible; that is, a food may be wholesome and nutritious—no, I beg your pardon—that is, if a food is wholesome and nutritious, it naturally follows that it is not injurious to public health.

Q. If it were admittedly injurious, naturally it would be admittedly unwholesome and not nutritious?

A. That's correct.

Q. Let me ask you this, does the combination of skimmed milk, coconut oil or cotton-seed oil, and fish-liver oils, as combined in Milnut and Milnot, in your judgment, result in a wholesome article of food?

A. The combination of the three ingredients you have mentioned, with coconut oil on the one hand, cotton-seed oil on the other hand, is not in any way detrimental to public health.

Q. The question is, is that combination a wholesome article of food?

A. And is definitely wholesome and nourishing.

Q. By "nourishing," you mean nutritious?

A. Yes.

Q. And in no way injurious to public health?

A. That's correct.

Q. I will ask you whether or not, in your opinion, the combination of these elements, which you have just described and I have asked you about, result in any loss of the various properties of the three separate elements about which we have talked.

The Witness: Are you referring to stability of the three ingredients in the combination?

Mr. Matthews: No, I am referring to nutritive value. What I am trying to do, Mr. Cannon, is this. You have spoken about the three elements separately.

The Witness: Yes, sir.

Mr. Matthews: I am now asking you about the combination, as to whether or not they are nutritious and wholesome. I am asking you if, by the combination, any of the nutritive and wholesome properties of each of the three ingredients have been lost.

A. The three ingredients individually are wholesome, nourishing and non-injurious to public health, and the combination of those three ingredients are equally wholesome, nourishing and non-injurious to public health, and nothing whatsoever is lost in combining the three ingredients to make one product.

. . . . . .

Dr. Oscar Franklin Bradford—for Defendants—Direct:

(Transcript, pp. 377-397)

By Mr. Matthews:

Q. Will you state your name, please?

A. My name is Oscar Franklin Bradford.

Q. And where do you reside?

A. 29 Sunset Hill in Columbia, Missouri.

Q. Columbia, Missouri?

A. Correct.

Q. What is your profession?

A. I am a practicing physician, specializing in pediatrics.

Q. For the purpose of those who are not quite familiar with what that means, will you state what is meant by the name "pediatrics"?

A. Pediatrics is that branch of medicine which has chiefly to do with the care of illness and nutritional care and the medical care as it pertains to infectious diseases among individuals nineteen years of age or below.

Q. How old are you, Doctor?

A. I am fifty-three, sir.

Q. In order that we may know your background and be able better to judge your testimony, will you be kind enough to state on the record, as consecutively as possible, your qualifications in the particular field that you have stated is your specialty, and, of course, your background insofar as the general practice of medicine is concerned. Be as full and complete with it as you can, and as concise.

The Court: Did you say "nineteen or under"?

A. Yes, sir, nineteen years of age or under. That is an age rather arbitrarily taken by pediatricians.

Q. Go ahead, Doctor.

A. Well, I received my academic degree at the University of Missouri in 1912, degree of Bachelor of Arts. I received my degree as Doctor of Medicine at Washington University Medical School in St. Louis in 1915. During 1913, '14 and '15, I was student intern in children's diseases in the St. Louis Children's Hospital. In 1915 I was graduate intern in the St. Louis Children's Hospital. 1916 I was a resident pathologist of the Barnes Hospital in St. Louis. I taught pathology and medical bacteriology in the Washington University Medical School

during that year. In 1917, part of the year I was resident pediatrician to the St. Louis Children's Hospital. Later, after entering the Army I was transferred to the University of Missouri where I was acting chief of the department of preventive medicines, medical, bacteriology and hygiene.

After that year I was sent, during my stay in the Army, to Rockefeller Institute for the summer, then to the Army Medical School, then I became the acting chief of the laboratory and base hospital in Camp Eustis, Virginia.

During my laboratory work in the Army as Acting Chief of the laboratory, I had charge of the examination of all water and milk, of all chemical analyses and of all specimens of liquor and dope handed us by the Government while I was at that station. In addition to that, I had charge of the bacteriologic and pathologic service, and as chief of the laboratory had charge of all the contagious work in this hospital, which was a twelve hundred bed hospital.

After coming out of the Army, I was connected with Kansas University Medical School, in which I was an instructor in the department of pediatrics, and gave lectures in childhood diseases to the juniors and the seniors.

In about two years I started the active practices of medicine.

Q. Would you mind stating the dates?

A. I started in the active practice of medicine while I was stationed at Kansas University—that was in 1919—and was on the pediatrics staff of St. Luke's Hospital, St. Mary's Hospital, St. Joseph's Hospital, the University of Kansas Hospitals and the Kansas City General Hospital.

During the time from 1922 until 1936 I was head of the department in at least three of these hospitals, and was chief of the pediatrics service in the Kansas City General Hospital, the years of 1934 and 1936. Then I became State Pediatrician to the State Board of Health of Mis-

souri. During that three years there we had a definite program in which lectures were given in post-graduate work to the physicians practicing out-state in the State of Missouri.

Q. Did you say "out-state"?

A. Yes, physicians practicing out in the state. During the two years, 1936 to 1938, I covered the state with two series of lectures of a post-graduate nature of childhood diseases to the doctors in the State of Missouri. The following year we took up, in conjunction and in assistance of, the Children's Bureau, an educational program in nutrition and the ordinary care of babies and children over the State of Missouri. During that time I gave about six to ten lectures a week, and possibly talked to some forty or fifty thousand mothers over the State of Missouri in this connection.

Q. May I interrupt you for a moment?

A. Yes.

Q. You speak of a Children's Bureau. Would you describe that a little more fully.

A. The Children's Bureau at Washington is one of the branches, as I understand it, of the Labor Department. It was headed at the time I was connected as I was by Dr. Martha Elliott in actual work in Washington. They had programs in education and obstetrics and childhood diseases in about seventeen or eighteen states in the Union at the time in which I was integested and working in this work.

Q. When you speak of Washington, you are referring to Washington, D. C.?

A. Yes, sir.

Q. You may continue.

A. In 1939 I again entered private practice in Columbia, Missouri. I became connected with Stephen's College at this time as a part-time basis, and I am interested there in what we call health education. In other words,

the Health Department or Student Health Service in Stephen's College is designed to try to educate these secondary college girls, or the freshman and sophomore college girls, in the matter of caring for children, proper diets for children, and a number of ordinary things that people should know relative to the prevention of these children from becoming ill of contagious diseases or infectious diseases. In addition to that, I am now also connected with the Student Health Service in the University of Missouri, and we have, in addition to the five thousand, or in round numbers, five thousand students, some one thousand added Flying Cadets who are now part of our Service. I have to do in that Service similar to the other places, namely, the care of the contagious disease side of that Service.

Q. Have you completed your statement, sir?

A. Yes, sir.

Q. Dr. Bradford, I will ask you if you keep abreast, by reading and otherwise, of medical progress in your specialty and, if so, by what means.

A. It is necessary, if a physician is to maintain—

The Court: That is not the question, what is necessary, but the question is, do you.

Mr. Matthews: That's right, sir.

A. I do, sir.

Q. Will you state by resort to what publications, or otherwise?

A. Well, we have in our line of work current publications, which not only give original articles but abbreviated reviews of the general medical literature, as well as our special literature, and then most of the branches of medicine have academics or clinical societies that meet certain times each year with the idea of bringing into general knowledge any newly found facts pertaining to our field. I keep abreast of the times, in addition to that, by buying such textbooks as appear from time to time. The value

of these, while five years late, is that they have had an opportunity to sift out the things that are beneficial and the ones that are harmful to medical practice.

Q. Doctor, do you attend these clinical meetings and conferences?

A. Yes, sir, I do.

Q. As a pediatrician, what are your activities, what do you do?

A. First of all, our first activity in pediatrics is the care of the newborn.

Q. Care of the what?

A. Newborn. That is usually the period of life included in the first month of life. Here we have to exercise practically all of our knowledge relative to infant and human nutrition, together with the most advanced steps in our methods of protecting these young people from infectious diseases. Then early childhood nutrition and infectious disease. Later in childhood, our chief activities are nutrition and mental or habit training and the immunization against infectious diseases, and the care of and the prevention of children who are exposed to infectious disease. I think that would cover it.

Q. Are you particularly and especially interested in milk and milk derivatives as a food for children?

A. Yes, sir.

Q. Is there a particular reason for you to be especially interested in that, other than your general practice in that regard?

A. Yes, the time in medicine which this generation of doctors in which this generation of doctors work. In about 1915 there was a decided falling-off of the number of mothers in America, and, I am told, other countries, who were able to nurse their babies at the breast. In other words, at that time and ever since in my active life as a pediatrician, time changed to where from 80 to 85 per cent of the mothers that I contacted nursed

their babies, to a condition in which at the present time, even practicing in a small city, I would say well beyond 60 per cent, and that has to be an estimate, because I have not looked it up.

Q. You say beyond or below?

A. Beyond sixty per cent of the mothers in my practice do not nurse their babies. In other words, we have to substitute for this natural nutrition some other form of feeding. This other form of feeding, as is the habit in this country, is largely derived from cow's milk, goat's milk and cow's milk products. Since that is the bulk of the diet for the early childhood in my natural work I have to be more or less familiar with infant feeding as it is reflected by milk and milk products.

Q. Have you had clinical experience in the feeding of animal and vegetable fats and oils?

A. Yes.

Q. I will ask you whether or not the feeding of animal and vegetable fats and oils constitutes an important and major problem in infant feeding.

A. It does.

Q. Will you state why it is necessary, if it be necessary, that other fats than vegetable fats and oils be substituted for human milk fat, which is the mother's milk?

Mr. Reno: You Honor, this and the ensuing testimony are objected to as being incompetent, irrelevant and immaterial, in tending to prove or disprove any issue in this case or to present a defense to the charges contained in the indictment; as tending to present evidence insufficient in law to present a defense; as an attempt to contradict those known facts of which the Court must and will take judicial notice; as an attempt to present evidence which would induce the Court to invade the province of the Congress by substituting its judgment for that of

the Congress; that the matters which this testimony would tend to prove have previously been excluded by this Court from its consideration by its ruling on the defendants' demurrer, motion to quash and plea in abatement. The product before this Court is not milk. It has the characteristics of milk in appearance, taste, uses, consistency and color. It is packaged as the genuine article is packaged. Since it is composed of skimmed milk to which a fat foreign to milk is added and by being blended and homogenized therewith, the resultant product is in semblance of evaporated milk and is capable of being sold as milk, it therefore falls within the statutory ban. Further objection is made for all of the reasons stated in the brief in opposition to the defendants' demurrer, motion to quash and plea in abatement, and in the memorandum of the Court entered in connection with said brief and pleas.

It is further moved to strike the answer to the last question on the same grounds and for the further reason that from the nature of the question counsel could not anticipate the answer which was forthcoming in time to object thereto.

The Court: Gentlemen, I thought we had an understanding at the beginning of defense testimony that this Court would stand by its ruling on the demurrer, motion to quash and plea in abatement, in which I tried to make clear my conception of what was proper under this indictment. It is my idea, and I so ruled and now rule, that all questions relative to the matters now sought to be introduced in evidence are foreign to the matters in issue in this case and not pertinent thereto, but I concede the idea that the defendants have the right to introduce evidence according to their own conception of their rights in this case, and it is done with the understanding that it is the Court's idea that the statute under which this indictment is found is self-explanatory, the Supreme

Court of the United States having held this statute constitutional. Furthermore, the statute under which we are proceeding is not indefinite or ambiguous. According to my conception and the theory upon which I am trying this case, this filled milk statute makes it illegal to introduce into interstate commerce milk to which anything has been added other than butter-fat. In other words, the filled milk statute, according to my conception, is all-inclusive, and prevents the shipment in interstate commerce of any milk which is filled or in any way impregnated with anything other than butter-fat.

Mr. Matthews: Would Your Honor permit a suggestion, by "anything," you mean any other fat?

The Court: Any other fat, yes. The defendants, as I understand it, contend and urge that such construction of the statute would result in unreasonable regulations and prevent the shipment in interstate commerce of many foods not harmful to public health. It is further my position that if such contention of the defendants is sound, the argument in support thereof should be made to the Congress of the United States and not to the courts. Congress may, itself, determine the means appropriate to this purpose governing interstate shipments. So long as they do no violence to the provisions of the constitution of the United States, it is, itself, the judge of the means to be employed in exercising the powers conferred upon it in this respect. I take it that defendants are relying upon the decision in *Hammer* v. *Dagenhart*, 247 U. S. 251. The decision was rested on the theory that Congressional power to prohibit interstate commerce, limited to articles which in themselves have some harmful or deleterious properties—a distinction which was novel when made and unsupported by any provision of the constitution has long since been abandoned. Citing *U. S.* v. *Darby*, 312 U. S. 100. The second point of the syllabus in *U. S.* v. *Darby*, 312 U. S. 100, is cited by the

Supreme Court of the United States, February 3, 1941, Mr. Justice Stone delivering the opinion:

"While manufacture is not of itself interstate commerce, the shipment of manufactured goods interstate is such commerce and the prohibition of such shipment by Congress is a regulation of interstate commerce."

Syllabus 3: "Congress, following its own conception of public policy concerning the restrictions which may appropriately be imposed on interstate commerce, is free to exclude from it articles whose use in the state for which they are destined it may conceive to be injurious to the public health, morals or welfare, even though the state has not sought to regulate such use."

Syllabus 4: "Such regulation is not a forbidden invasion of state power merely because either its motive or its consequence is to restrict use of articles of commerce within the states of destination; and is valid unless prohibited by other constitutional provisions."

Syllabus 6: "The motive and purpose of a regulation of interstate commerce are matters for the legislative judgment upon the exercise of which the constitution places no restriction and over which the courts have no control."

Possibly I have gone farther into this than I should, but if I have not heretofore made my position clear I think this will clarify the position that I take and the theory upon which I am trying this case.

If I have not made myself clear in my ruling and quotation from the Supreme Court my general ruling on this covers that, and the court holds it improper, but I further hold that the defendants have the right to make their case and introduce such testimony as they think is proper for a defense to these charges.

Mr. Reno: Then is it agreed that, as we did Saturday, this is in the nature of a proffer and these objections do not need to be repeated, exception taken, and

so forth, to the court's ruling, and the testimony is submitted in the nature of a proffer.

Mr. Matthews: I thought we had clearly and fairly stated that Saturday, that under the particular situation here it was assumed, and the record could show, that the Government have the right and are presumed to have made an objection to each and every question and the Court sustains them, insofar as those objections relate to the general matters that Your Honor has talked about here and upon which his ruling has been based.

The Court: But I can see, Mr. Matthews, where counsel for the Government, out of an abundance of precaution, possibly feel that that understanding and stipulation was only as to that one witness. We will now have the distinct understanding that that objection and that ruling of the court applies to each and every witness the defense may put on covering the questions that the defense is now seeking to bring out by this witness.

Mr. Reno: Yes, sir, thank you.

The Court: That is understood, Mr. Matthews?

Mr. Matthews: Yes.

Mr. Reno: That was my confusion about whether that was applicable to one witness or to all, and I thought I must protect our record.

Mr. Matthews: That agreement extends to every witness of this type on this subject.

Mr. Reno: And it is not necessary for me to repeat our objection?

Mr. Matthews: Not at all.

The Court: We have a clear understanding now, and I have tried to make my position clear to counsel on both sides. If I am wrong on this theory of this case I know I will be corrected. I spent most of Saturday working further on my theory of this case, and I always like to give counsel the benefit of such research as I have been able to make, although not cited by counsel on either side.

Thereupon, the question was read, as follows:

"Will you state why it is necessary, if it be necessary, that other fats than vegetable fats and oils be substituted for human milk fat, which is the mother's milk?"

A. It is necessary to use fats other than those occurring in breast milk of human beings in the feeding of infants. This necessity arises from the statement I made recently in which, in my experience, a large majority of all new-born infants in this day and age require artificial feeding.

Q. Is it the practice to put infants on modified cow's milk or products prepared from cow's milk?

A. It is.

Q. Will you name for the Court some of the modified substances employed, in your experience, for this purpose?

A. Well, modified cow's milk itself as it appears in the packages delivered locally by the local dairies, that is what we call bottled milk. This milk, before used in infant feeding, by necessity, must be modified, because the children, as a whole, do not handle it properly. Then we have modified cow's milk or formulas made from cow's milk that has been condensed and put in cans, with the addition of cod-liver oil or with addition of sugars, in some instances, and then concentrated by evaporating part of the water or all of the apparent water out of it, in which form it would be put up in sealed containers as a powdered preparation. To restore it then to fluid we have to modify it by adding water and other things we deem necessary. In the beginning, about 1915, Dr. Gerstenberger, of the Cleveland Clinic, answering a demand on the part of practically every pediatrician in America to find a feeding in which the irritation produced by the cream in cow's milk formulas could be replaced, attempted to bring out a feeding in which the fat in human milk was

simulated, to a great extent, by a mixture of vegetable oils and suet, including cod liver oil itself. This, while it met most of the requirements, still in some children produced irritability. Then as——

Q. Pardon me just a moment. Is there a name of Dr. Gerstenberger's product?

A. This was named in common terminology and so labeled as S.M.A.

Q. I will ask you whether or not that product has a widespread use throughout the United States.

A. It has been widely used since about 1920.

Q. And how is it prepared, is it only dehydrated or is it also a liquid?

A. It was originally dehydrated and put in sealed packages as a powdered form. In time, more recent demands have required liquid milk, so it is put up in liquid form, and it has also, during the years since 1920, had, to some extent, changes in the fats involved and in the proportions. He has changed his formula several times.

Q. May I interrupt you there? What was the purpose and what is the purpose of adding the cod liver oil?

A. To supply A and D vitamins.

The Court: A and what?

A. A and D vitamins, which are known to be not only variable but of insufficient quantities in all forms of animal milk—well known throughout the country.

Q. Will you state, as succinctly as you can, the ingredients of S.M.A.?

A. I am not certain, because I have never been informed with accuracy, but I do know that at times, or that it has at times had suet and cod liver oil and vegetable oil, which, as I remember, was in the form of olive oil in the original.

Q. What is the solid basis of the product?

A. The solid basis of this product is skimmed milk.

Q. S.M.A., skimmed milk, cow's milk—now, will you

Dr. Oscar Franklin Bradford—Direct.

state, please, what, if any, other well-known and customarily used product for routine infant feeding is sold generally throughout the United States?

A. Well, the next best-known, I would say, is Similac. This product, again using the skimmed milk basis, has had returned to it one-fifth of the fat taken out.

Q. Returned to what?

A. To the skimmed milk, one-fifth of the fat taken out. Coconut oil has been added and cod liver oil concentrates have been added, and then they go further in their preparation by adding an additional amount of milk sugar to bring it up in the neighborhood of the milk sugar contained in breast milk. Understand, all of these attempts to change cow's milk, that is, with a skimmed milk basis, is an attempt to simulate human breast milk and not an attempt any other form of other animal's milk, the attempt always being to simulate breast milk chemically. Then, more recently, Dr. Emmett Holt, in his clinic, has devised or has given clinical trial to another milk known as Olac. Olac is——

Q. Spelled O-l-a-c?

A. O-l-a-c or O-l-e-a-c, maybe, but anyway, it is a skimmed milk base from which or has had extracted the butter-fat, to which he has added olive oil and cod liver oil concentrates. This has had under, I would say, controlled feeding, perhaps a little more experience, in that he did control it in his own hospital wards and found it to be as near equal to breast milk as any of the others, or perhaps a little more. There have been others.

Q. How do you spell that, Recolac?

A. They all have the same principle, and further enumeration would be repetitions.

Mr. Matthews: I beg your pardon?

A. Most of them have the same principle, and further enumeration would be repetitious. The product here in question is likewise modified by the removal of the

butter-fat or the cream and the addition—at first, when I began to see it used—

The Court: You are volunteering something beyond the question. Confine yourself to answering the questions and be satisfied therewith, without a lecture.

Q. Now, Doctor, we have involved in this case a product or products under the name of Milnot, Milnut and Carolene, and these products, or each of them, is created or blended, whatever that may be, by adding coconut or cotton seed oil to the products known as Milnut and Milnot, respectively, together with fish-liver oil concentrate in each case, as the result of the addition of which fish-liver oil concentrate, approximately 400 units of Vitamin D and approximately 2,000 units of Vitamin A are found in the market size can, known as the 14½ ounce can. I will ask you whether or not, in your opinion as a physician specializing in the diet of children and young adults, I believe you have stated nineteen and under the age of nineteen, do the skimmed milk and oil ingredients in all of these foods supply needed food values?

A. They do, sir.

Q. And will you state in what respect, and the basis for your answer?

A. Well, this product contains fat protein in a usable form, carbohydrate vitamins and minerals, a certain amount of water, all of which are required in our demands of human nutrition.

Q. Is there any element in either the skimmed milk, the coconut oil and cotton seed oil, or the fish-liver oil, in any one of them or all of them combined together, that is unwholesome as a food or detrimental when taken as food?

A. There is no element that is either unwholesome or detrimental.

Q. Or is either of these elements or the combination of all of them that I have mentioned in any way injurious to public health?

A. Individually and in combination as they are obtained here, they are not injurious to public health.

The Court: As obtained where?

A. In this product, Carolene, or Milnot.

Q. Or Milnut?

A. Or Milnut.

Q. The ingredients of which I have stated to you?

A. Yes.

Mr. Matthews: Q. Doctor, will you state the clinical difference, if there be such, in the effect of various oils, namely butter-fat, cotton-seed oil, coconut oil, and fish-liver oils?

The Court: On what? That question is not clear to me.

Mr. Matthews: Will you read it?

(The question was thereupon read by the Reporter.)

Mr. Matthews: Q. And the effect that I am speaking of is the effect from a nutritional standpoint?

The Court: On what?

Mr. Matthews: On the human body.

. . . . . .

(Transcript, pp. 397-398)

A. In feeding of these various oils, the nutritional value of the coconut oil, for instance, the cotton-seed oil and cream or butter fat, is practically of no importance, but in the case of the fish liver oils they have added much, it having a much higher concentration of Vitamins A and D than the other mentioned oils.

Dr. Oscar Franklin Bradford—Direct.

As to feeding combinations of the three oils as they are commonly used in infant feeding, the ones containing the vegetable oil fortified with A and D are of more constant and superior quality than the others commonly used, because the A and D in Mihot, in Mihut, and in Carolene, in amount is at least 2,000 units of A and 400 units of D, whereas in most of the other preparations 135 units of D and not as a rule a definite amount of A is present.

Q. Do these oils I have named supply fuel or energy to the body?

A. They do.

. . . . . .

(Transcript, pp. 398-404)

Q. What have you to say whether or not these oils I have named have any bearing on the fuel or energy needs of the body?

A. Based on caloric value?

Q. Nutritional?

A. Based on caloric value they all have in the neighborhood of 9 calories per gram.

Q. Dr. Bradford, is there any difference between butter-fat, cocoanut and cotton-seed oil in respect to their fuel or energy value?

A. In the forms ordinarily fed to human beings there is no difference, namely, they all have a value of 39 calories, as I understand it, to a gram.

Q. Is there any substantial difference between cocoanut oil, cotton-seed oil, and butter-fat in respect to digestibility?

A. Yes; in young children the butter-fat, having more irritable fats—fatty acids in it—produces in the intestines a certain amount of irritation, which in many cases causes hurrying or increased rapidity of the peritalsis.

The Court: Q. What is peritalsis?

A. A wave-like mobility of the intestinal tract when excited by food stimulants in the bowels. It moves and waves in coordination of the musculature of the intestine. It is synchronized in such a manner that when the intestine is excited by any outside irritable substance it will force the food and keep it from being static. I mean move it on, in other words, through the intestinal tract.

On the whole, cotton-seed oil and coconut oil produce less irritability in the intestinal tract and with that a minor amount of slowing of intestinal movement in the case of vegetable oil.

Mr. Matthews: Q. I will ask you whether or not you are guided and aided by the work of biochemists, physiologists, and so forth, on experimental animals?

A. Yes, with, I think, the great advancement in our knowledge of the development or the development of our knowledge in clinical feeding rests a great deal on the work of investigators.

Q. I assume by your reading of reports in medical journals and works of that character?

A. That is correct.

Q. In your practice, doctor, do you place as much reliance on such experimental work of biochemists, physiologists, and so forth, on experimental animals as on your own clinical experience?

A. I place reliance upon experimental work until it has been given ample trial by clinical experience, but should experimental work on animals of lower category than the human not be proven in all manner and respect identical in the human being, then naturally I would accept my own experience in the case of the human being.

That does happen occasionally in, especially, the vitamin-controlled experiments as we apply them to the human being.

Dr. Oscar Franklin Bradford—Direct.

Q. Now, doctor, I will ask you whether or not you have had clinical experience with children receiving Milnot or Carolene?

A. I have.

Q. I want to include the product in this case known and described as Milnut as well?

A. Yes; I have.

Q. How long have you had clinical experience with the feeding of those products, or either of them?

A. In my own feeding and in the feeding of any clinics in which I have had access to observations I have watched these products fed for about two years.

Q. And where?

A. In Kansas City and in Columbia, out over the state of Missouri. I saw them fed long before that when I was state pediatrician. I was particularly in the outlying districts in the south part where the climate was such that fresh cows milk was not always of the best quality or could be had.

Q. On the basis of that personal experience which you have just described, what will you say as to the food value of Milnot?

A. The food value of Milnot is——

Q. Let me shorten the question, and we will take one at a time. What will you say as to the food value of Milnot, Milnut, and Carolene, respectively?

A. They are of equal food value, or I mean equal enough value that it would be academic to discriminate.

The Court: Between what?

A. Between those three.

Q. Milnut, Milnot, or Carolene?

A. Yes, sir.

Mr. Matthews: Q. I will ask you to state whether or not on the basis of your experience each of them is a wholesome product?

A. It is.

Q. And whether or not each of them is nutritious?

A. It is.

Q. I will ask you whether or not each of them has growth value?

A. Each of them has growth value.

Q. I will ask you whether or not either of them is injurious to public health, to the person using them?

A. Neither is injurious.

Q. I will ask you whether or not skimmed milk is a wholesome, nutritious, and a growth-valued product?

A. Skimmed milk is wholesome; it is nutritious, and when fed to children does promote growth.

Q. I will ask you whether or not skimmed milk is injurious to the health of the child or the person using it?

A. It is not.

Q. I will ask you whether or not cotton-seed oil is wholesome and nutritious and whether or not it is or has got growth value?

A. It has growth value, and when fortified with Vitamins A and D to the extent that it is not naturally present in this oil, it is equally nutritious to the other commonly used edible oils.

Q. Is it in any way injurious to health?

A. It is not.

Q. Cotton-seed oil. Would your answer apply also to coconut-oil as to cotton-seed oil?

A. Yes, sir.

Q. I will ask you whether or not any of these elements that we have described, that is, skimmed milk and oils, including fish-liver oil—any of these, skimmed milk, oil, or fish-liver oils, Vitamin A and D are poisonous, lifeless, or valueless for the growth of children and injurious to them and their health, or in any way injurious?

A. They are not in any way injurious, and they do not produce the enumerated injury.

Q. Will a combination of these elements cause rickets?

A. They will not cause rickets. On the other hand, in the proportions they are used, this product would tend to be prophylactic to the disease of rickets. It would prevent rickets, in other words.

Q. What particularly vitamin is there in this?

A. D. 400 units is considered a preventative of rickets.

Q. I will ask you whether or not the combination of these elements that I have described will cause tuberculosis?

A. It would not because it has been sterilized to the point that tuberculosis ganisims, or tuberculosis producing germs, would not be present because of sterilization.

Q. I will ask you whether or not the combination of these elements in the product would cause eye disease?

A. It would not cause it, and it might prevent it due to the fact of the 2,000 units of A Vitamin included in each can of this product.

Q. Is that the particular vitamin?

A. That is A Vitamin has to do with the so-called night blindness.

Mr. Matthews: That is all.

. . . . . .

Dr. Anton Julius Carlson—for Defendants—Direct.

A witness called on behalf of the defendants, being first duly sworn, testified as follows:

(Transcript, pp. 405-419)

By Mr. Matthews:

Q. Please state your name, address, and occupation?

A. Anton Julius Carlson, 5228 Greenwood Avenue, Chi

cago. I am professor emeritus of Physiology, University of Chicago.

Q. Is that your office address, sir?

A. University of Chicago, Department of Physiology, University of Chicago.

Q. Dr. Carlson——

The Court: Professor emeritus of what?

A. Of physiology.

Q. Of what institution?

A. University of Chicago.

Q. What is the science of physiology, doctor?

A. Well, briefly, it is the study, investigation, and the teaching of the dynamic processes of the living body, primarily in health but also in disease. In other words, the elucidation of the machinery of the brain, muscles, the nerves, alimentary canal, the liver, kidney, lungs, and all that; primarily in health, also in disease. That, of course, includes the factors in growth, nutrition, and all of that thing.

Q. Thank you, sir. Now, Dr. Carlson, not for the purpose of embarrassing you, but for the record in this case, I will ask you to please state your qualifications as a scientist, giving your training, background, and experience and various associations with other scientific bodies and individuals, and places, giving it to us in as complete a manner as you can, because it is necessary for this Court to have your qualifications on the record, if you please?

A. Well, I had my undergraduate college training in a little college in Rock Island, Illinois, in Augustana. I received my Bachelor's degree there in 1898. I remained for one additional year of post-graduate training and received the Master of Science Degree in 1899.

Then I went to Stanford University, California, as a graduate student and assistant in physiology, and received my PhD degree in physiology there in 1902. In the following year I was appointed Research Associate of the Car-

negie Institution of Washington, but I spent my time in research in California. Then I spent the summer of 1904 at the Marine Biological Laboratory at Woods Hole, Massachusetts, that is, continuing my research particularly on the heart and the heart nerves.

Then, for a period, I think, of three months I was instructor in Physiology at the University of Pennsylvania Medical School, Philadelphia, but almost as soon as I went to that school I received a call from the University of Chicago by the Christmas of 1904, and I have been connected with that university and medical school till my retirement two years ago. The last ten years while active in the University of Chicago I held one of the ten Distinguished Service Professorships in that university.

Also, I have attended International Congresses in any field of physiology, experimental pathology, physiology, biochemistry, pharmacology—spear-heads of investigation in medicine—beginning 1909, in Vienna, later in Cronningen, Holland, Edinburgh, Scotland, Stockholm, Sweden, and Leningrad and Moscow in Russia.

Under the auspices of the Rockefeller Foundation I was a lecturer in China, principally Peking, but also Nanking and Shanghai in 1935.

In World War I, 1917, I joined the U. S. Army, the Food and Nutrition Division of the Surgeon-General of the U. S. Army and saw service in the A. E. F. from January, 1918, to June, 1919—no, August, 1919, dealing essentially with the nutrition and the rationing of our forces and hospitals.

After the Armistice in 1918 I was drafted by the American Relief Administration under Herbert Hoover in his office in Paris, and my special duty was the working out and the delivery of an extra ration a day—an extra meal a day—to the several hundred thousand undernourished children in the war devastated areas in Europe, working at first in the Paris office and later carrying it

through in the field, in Czecho-Slovakia, Austria, Jugo-slavia, Poland, Lithuania, Latvia, Esthonia, and Finland.

I have been a member, officer, secretary, and president of a great many medical, biological and scientific organizations in this country, and I am a former member of a great many of these scientific organizations in Europe, Asia, and South America. I have been a member of the National Academy of Sciences for some twenty-five years. I have been chairman of an advisory committee of this Academy, advisor to the Government on the problem of lead, arsenic, and toxic sprays on fruits and vegetables. I have been, and still am, a consultant to the U. S. Public Health Service, and I was chairman of an advisory committee to the Surgeon General of the United States Public Health Service on the same problem of toxic fruit sprays a few years ago. I have for many years been consultant to the U. S. Food & Drugs Administration in fields where this Administration thought that I had some competency.

For some ten or twelve years I was a member of the Council of Pharmacy and Chemistry of the American Medical Association. I have been for several years a member of the National Foundation for Infantile Paralysis, Chairman of the Executive Committee of the After-Effects in Infantile Paralysis and member of the General Medical Advisory Committee of that organization.

I have been Associate Editor of the American Journal of Physiology, of the Proceedings of the Society for Experimental Biology and Medicine. I have for ten years been chief editor of the Physiological Review. I was for many years Chairman of the Committee of Public Health of the Civic Club, a civil organization in the city of Chicago.

I am a member of the American Public Health Association and have been for many years. Among the scientific and medical organizations in which I hold mem-

bership and of which in many cases I have been an officer, are the American Physiological Society, the Harvey Society, the Institute of Medicine, Academy of Pediatries, American Medical Association, Chicago Pathological Society—oh, I think that's all.

The Court: Doctor, I didn't get your age. How old are you?

A. I am 68. I was born in 1875.

Mr. Matthews: Q. I will ask you, doctor, whether or not you have received any degrees from the University of California?

A. Yes. I received a degree. I forget whether it was Doctor of Laws or Doctor of Science from there. I have received degrees from other colleges and universities, so-called honorary degrees, including M.D. Degree from the University of Lund.

Q. Where is that place?

A. It is in Sweden.

Q. With reference to Lawrence College, what, if anything, did you receive from it?

A. Well, it was either Doctor of Laws or Doctor of Science. I forget. I don't care that in my memory.

Q. I will ask you whether or not you are associated with the American Institute of Nutrition?

A. Yes. I am a member and have been for years. I am a charter member of the American Institute of Nutrition. I am also a member of the Illinois Committee on Nutrition organized two years ago as a result of the Nutrition conference in Washington, D. C.

Q. I will ask you whether or not you have rendered other public services in addition to those that you have stated but outside of your school or university and outside of teaching; of course, outside of your work rendered

during the war, and after the war, and what, if any, Governmental agencies that you have advised other than the Public Health Service and the Food and Drug Administration?

A. Why, the Federal Trade Commission has called on me from time to time. I have assisted them. As a matter of fact, I am advising them now in issues before them.

I don't have any particular public duty except a great many hard tasks of lectureships before medical organizations, colleges, and universities in every state in the Union except two, Maine and Florida.

Q. I will ask you whether or not you have ever had any official position with the Government Advisory Committee of the National Academy to the Department of Agriculture?

A. Yes. I did testify to that, if you please.

Q. I am sorry. I will ask you whether or not you have published any works of a scientific nature, including control of hunger and health and disease?

A. Yes. I have published considerably, mostly in American but also some in European journals, some two hundred scientific papers, two little volumes on "Control of Hunger" and "Health and Disease," a summary of one line of studies on the alimentary canal. I also, together with Dean Johnson, published a more recent book, "The Machinery of the Body." I published in other books of multiple authorship, on the physiology of aging, on endocrine glands, et cetera.

You mentioned—pardon me—among other public duties which may be significant. I have, for a number of years been a member of the Board publishing Biological Abstracts, a great American undertaking for the science of Biology throughout the world.

Q. Doctor, have you served as a Member of the Council of Foods, which started as the Council of Pharmacology

and Chemistry dealing specifically with the quality, efficiency and honesty in the development of nutrition.

A. I didn't serve on that Council. I had enough with the work of pharmacy and chemistry, although I have been consulted from time to time.

Q. I will ask you to state what recognized and well known medical journals bear articles of your own publication and composition?

A. American Journal of Physiology, Archives of Internal Medicine, Journal of American Medical Society, Endocrinology, a journal devoted to the problems of the endocrine glands, the Proceedings of Experimental Biology and Medicine, and also some of the State Medical Journals, Illinois, Minnesota, State of Washington, Oregon—oh, I don't remember them all, Science, Sigma Xi Bulletin.

Q. Doctor, I believe in the layman's way of stating it that you defined Physiology, in the beginning here, as dealing with Chemistry and physics of the living and the dead—was it the word "dead" you used?

A. No. I didn't use "dead".

Q. Will you strike that? Of the living.

A. Of the living in health primarily, and also in disease.

Q. I got that "disease."

A. Disease. There isn't much dynamics in the dead.

Q. I agree with you, and I thought of that before you used the word. I thought it was examination of dead that helped you in the aid of the living. Have you in your life during the past thirty or forty years had occasion to instruct and train physicians, and if so, how many in your particular field?

A. Yes, beginning in a minor way in Stanford University forty years ago, but particularly at Chicago I helped train between five and six thousand physicians and I might say in a small way that I am still at it.

Dr. Anton Julius Carlson—Direct.

Q. Dr. Carlson, are you familiar with a product known as Milnot?

A. Yes.

Q. What does it contain?

A. It contains concentrated skimmed milk hydrogenated, partly hydrogenated cotton-seed oil, and concentrated fish-oil for its Vitamin A and D.

Q. You say that it contains Vitamins A and D. Do you know in what form these Vitamins have been added?

A. They are the natural vitamins in fish-liver, apparently identical with the vitamins we carry in our own livers or in animal livers. For some reason the livers in animals, including man, store that form of Vitamin and they are present and in high concentration. Vitamin D can, of course, be made up in other ways than the way found naturally in the food now, but not Vitamin A.

Q. Is this type of addition of Vitamins A and D for instance commonly produced in fortified and concentrated foods and medicines?

A. Yes. This is one way of prophylaxis or prevention of deficiencies in those two elements. Another way, of course, is to serve them or sell them as concentrates separately, but the more universal certainty or certainty of universal needs is made when they are present in adequate amounts or added in adequate amounts in the common foods.

Q. Is there any evidence to your knowledge that these vitamins in the amount present in this product, Milnot, are harmful?

A. No. There is no evidence that I know of that Vitamin A in tremendous excess, way above that found in this food, has any injurious effect. There has been some evidence of possible kidney injury in the case of very high amounts, way above anything in this food, of Vitamin D. In numerous but recent experiments using these huge amounts in the hope of ameliorating arthritis has

resulted in no kidney injury, and therefore these clues in the rat does not seem to apply, but in the amount there, no.

Q. Then if I understand you correctly, Doctor, it is your opinion that the amounts of vitamins present in this product, Milnot, are not injurious and that they do have an important nutritional function in use in this product. Is that correct?

A. It is correct.

Q. When this product is used by adults in the customary amounts does this product contribute a significant amount of Vitamins A and D?

The Court: Which product?

Mr. Matthews: Milnot.

A. Yes.

Q. When this product is used by infants does it contribute a significant amount of Vitamins A and D?

A. It does.

Q. Is it your understanding that the product Milnut contains refined coconut oil?

A. Nut, n-u-t?

Q. Yes. That is right.

A. Yes. That was my understanding although I have done personally no work on that form.

Q. Is coconut oil a natural food?

A. Yes for the people who can get it. It has been, of course, natural food for the natives where the coconuts grow from time immemorial and for the other people for a long time through importation.

Q. Is there any evidence to indicate that coconut oil is in any way injurious when used in a product such as Milnut?

A. No. No evidence whatever in the amount that one would get in using that product.

Now, there is some suggestion, but not very clear, that used in excess amounts and in very great amounts really,

when all fats, including butter, are injurious to the liver and digestion. That amount of coconut oil might have an irritating effect on the alimentary canal, but that is way above what people ordinarily would eat. If the Court please, there is a distinct limitation of the human digestive capacity in the case of any fat. If we exceed that then we will have trouble from bacteria and other things because the fats when they have passed into the small intestines inhibit the secretion and mobility of the stomach.

Q. Is natural coconut oil digestible?

A. Yes.

Q. Is it an economical source of calories?

A. Well, I would not pass on that. It depends on what you pay for it.

Q. You will have to pardon me.

A. Where the coconuts grow it is economical.

Q. Is coconut oil efficiently converted into calories in our bodies like other digestible fats and oils?

A. Certainly. It was proved, by the way, by the Government itself many years ago. Dr. Langworthy did the fundamental work on the digestibility of the various forms of fat in the human diet.

Q. Is it your understanding that the product Milnot, n-o-t, contains refined cotton-seed oil?

A. Yes, partly hydrogenated or hardened, that is correct.

Q. Is cotton-seed oil a natural food?

A. Yes.

The Court: For what?

Mr. Matthews: For the human race.

A. For man or beast. It is a seed. The elements in the seed, like wheat or oats, and it has got to be refined for human consumption.

Q. Is it an economical food fat?

A. It certainly is.

Q. Is cotton-seed oil digestible?

A. It is. You mean by the human—

Q. Yes.

A. Yes. By the human alimentary tract.

Q. Is there any reason to believe that refined coconut oil or refined cotton-seed oil, it may be partly hydrogenated, is added to skimmed milk that the food qualities of these oils will be impaired in any way?

A. No. I know of no evidence that mixing these together that any one of the original ingredients are impaired as foods.

Q. Doctor, with reference to skimmed milk you understand, do you not, that it is a part of the product, Milnot and Milmut?

Q. I will ask you whether or not skimmed milk is a natural food?

A. Yes it is certainly. It certainly is and has been a natural food since man started to keep cows and goats. Before that it wasn't of course available as food. It is a natural food and it is a good food, and the everlasting pity is that the common notion in our country is that the richness or food value of milk has been taken away by the cream and that skimmed milk is fit food only for hogs and cows.

Q. Will you expand on that, Doctor? Please enlarge upon it.

A. Well, the milk contains some of the most valuable proteins for human needs. That protein remains in the skimmed milk, little or nothing of it goes out with the cream except so far as cream contains milk. It has been proved abundantly, the very high nutritive or biological value of the proteins in milk. Consequently the milk is a good—a very important source of lime—calcium, and that nearly all of it remains, the lime, in the skimmed

milk, and it is a significant source of some of the water-soluble vitamins that remain back in the skimmed milk. Of course, Vitamins A and D in the milk goes out largely with taking the cream or the butter out.

I have for many, many years taken the view that even in this land of plenty as to foods it would be a great nutritional insurance if the fifty billion pounds of skimmed milk a year produced in this country but not going into human food, could somehow be gotten in the channels of human food, and I know that the agencies of the Government, the Department of Agriculture, by and large is of the same opinion and is trying to foster this desirable end.

. . . . . .

(Transcript, pp. 419-422)

Q. Dr. Carlson, what is the importance of this protein from the nutritional standpoint?

A. Well——

The Court: You mean the protein in skimmed milk?

Mr. Matthews: Yes, that you have described.

A. It is an animal protein like the proteins in liver or meat or chicken or fish and these proteins come closer than the vegetable proteins to meeting the nutritional needs of man. That is to say, they can grow and carry on officially with smaller amounts of proteins if they are of animal origin than if they are of vegetable origin. A protein deficiency is one of the serious factors in an overall malnutrition, as I abundantly saw in Europe in World War I. At that time it wasn't known that the so-called war edema or hunger edema was due to little proteins. When I was in the War seeing this in the human being in the field, one of my students proved the problem at home in my laboratory in Chicago. This protein in skimmed milk is not absolutely necessary, but it is so

valuable that it should not be wasted. Have I made myself clear?

Mr. Matthews: Yes, sir.

Q. Does the concentration of skimmed milk impair the nutritional value of milk protein?

A. No, if not to great. Heat is used so as to denature it. No. In the ordinary concentration of boiling, no. It is not essential.

Q. Then is it your opinion that in terms of protein skimmed milk is fully as good as whole milk, a product like Milnot or Milaut, which contains a concentration of skimmed milk, is a large source of man's protein?

A. Oh, yes.

Q. Is the quantity and quality of the protein of importance in the nutrition of people?

A. Decidedly. I made that point clear, I think.

. . . . . .

Q. What approximation of the proportion of the calcium in milk is removed when the cream is removed?

A. Oh, I cannot give you the exact figures. I think less than somewhere between five and ten percent.

Q. In other words, if I understand that answer, the skimmed milk after the removal of the cream from the milk, contains ninety to ninety-five percent?

A. Yes. Somewhere around there. It is nearly all left in the skimmed milk.

Q. Is milk an important food source of calcium?

A. Decidedly so, particularly with our modern development of handling foods and cooking foods where so much of the lime in the natural foods are lost, cooked out, discarded in cooking water.

Q. Is there evidence that there is a calcium deficiency in the American dietary?

A. Now you are asking a profound and difficult question.

Dr. Anton Julius Carlson. Direct.

The leading authorities in the field in the United States, like Professor Sherman of Columbia, who has now gone into the Department of Agriculture, and others, including a Committee of the National Research Council on Foods, take the view that either the American dietary is over on the ragged edge—some say chiefly above, many below the ragged edge—in the calcium intake and that therefore a certain degree of calcium deficiency in the diet, widespread, but as to the actual proof, unquestionable scientific proof, we haven't got it.

But, I take the position that you have not in the absence of proof and the evidence that we may be on the ragged edge, that we might as well add a little salt to our table salt, like we have added iodine in the regions where our food and drink is deficient in it, but that suggestion is so new that it hasn't gotten over.

The Court: In what form would you introduce it?

A. A little calcium phosphate in table salt, it wouldn't cost anything and it would be universally used, if the Court please, in cooking, in the preparation of our food.

The Court: Calcium, that is lime?

A. Lime is usually calcium carbonate, a carbonate of lime. We get it better in the form of calcium phosphate, I think, but lime is the basis, that is, calcium.

. . . . . .

(Transcript, pp. 423-448).

Q. Dr. Carlson, is the calcium enrichment of foods being proposed by any federal groups and nutrition experts?

A. Yes, nutrition experts. It is under consideration at present in the matter of bread, but I don't think they have reached a decision yet. I know the calcium enrich-

ment in the case of bread has been actually undertaken in England. It is still under advisement.

Q. What evidence is there that a greater consumption of calcium by the people would result in better health?

A. Well, that evidence is not very clear. It is rather subtle, both regard to the bone, the teeth and the blood. In general, the blood calcium level holds steady, even though the bones and the teeth are depleted when the amount of calcium in the diet is less than the body needs, so the bone becomes decalcified to meet the needs of the blood, which is internal environment, if the calcium in the blood falls low, considerably lower than the lowest minimum, nine milligrams per hundred c. c.s of blood, when calcium falls much below that; and it won't do that as long as there is calcium in the bone that can be drawn on, then serious disturbances of the brain and the nerves, and the muscles start in. The safety lies there in the reserve in the bone. The best evidence is something like this, that, on the whole, the daily dietary intake of calcium must balance the loss in the urine, in the excrete. It's on a basis like that and the average calcium intake and the average dietary that the professional forum has reached the conclusion that we are on the ragged edge, but just what it would do to general health you cannot say in so many words. We do know that, among other things, if there is not enough calcium in the growing child's diet he will develop rickets, even though he has Vitamin A and D, one of the things. That's the best answer I can give.

Q. What are principal water-soluble vitamins found in skimmed milk?

A. Well, they are of the B complex, riboflavin, et cetera. Very little of the Vitamin C or the antiscorbutic vitamin is there, but the Vitamin B complex are, skimmed milk in considerable amount.

Q. What proportion of the thiamine in whole milk is found in skimmed milk?

A. Nearly all of it.

Q. Is that because thiamine is a water-soluble vitamin?

A. Yes.

Q. Doctor, is there evidence that thiamine deficiency is common in the United States?

A. Well, that's the same difficult problem as the problem of calcium deficiency. There are competent people who take the view that, on the basis of dietary studies; at least, if not on the basis of studies of sick people or well people—well people are the basis of dietary studies—that there is a very widespread thiamine deficiency, and those who have made such studies include the people in the Home Economics of the Department of Agriculture. Other studies have been made outside. Now, the trouble with that situation is this, that we have not today, if the Court please, adequate physical or bio-chemical or clinical tests to determine the beginning of the deficiency. When the deficiency becomes very great, then we can determine. It's the same way with all of these deficiencies, to determine the beginning of the deficiency, the protein deficiency, calcium deficiency or vitamin deficiency, any one of them. The only nutritional deficiency that we can determine very accurately is iron deficiency, because there we have tests in the blood that are very contemplative and accurate, and can be made on living people without any difficulty. There is no doubt some deficiency. How widespread it is, we do not know. Experts differ.

Q. I will ask you, Doctor, to state whether or not federal groups and nutrition experts are advocating the addition of thiamine to certain basic foods.

A. Yes, not only federal groups, but—well, you can call it the National Research Council, the federal group official advisory body on scientific matters to the Govern-

ment. My former pupil there, Russell Wilder of the Mayo Clinic, is one of the leaders in that line, and, of course, they have actually passed the regulations regarding enriched bread or flour, white flour. Others are under consideration.

Q. Are what, sir?

A. Other types of enrichments are under consideration.

Q. I will ask you whether or not the consumption of skimmed milk contributes or does not contribute a significant amount of the daily needs of thiamine to the person consuming it.

A. Oh, yes, if they consume it enough it would contribute significantly to that phase.

The Court: What would you consider enough, Doctor? That is for my own information, gentlemen.

A. Well, that's another difficult question. We have very definite experiments on animals where we can measure the amount of that vitamin alone and then, all of the rest of the diet being adequate, see over a long time certain deficiency symptoms or diseases develop. Then we observe in people over a long time, in the care of diets where we can estimate the quantity of the thiamine, and we see symptoms develop, and then we give them the addition to that diet, under which those symptoms disappear, so far as we can determine, and that is, in a measure, the minimum required for average health. That would be what we call enough. Now, many people, of course, take in very much more than that, and the excess vitamins taken in in the food is, in some cases, stored in the body tissues and the rest are excreted through the kidneys. We have figures for the supposed minimum, or enough, requirements at the different ages of men from infancy up. I do not recall now exactly those figures but, if the Court please, they are approximate, because, under

certain strains, like diseases or extreme cold or extreme exertions, more of the vitamins will be needed, and then we are not all blessed with the same efficiency in the gut, in the alimentary canal. We don't absorb it equally, or we may have bacteria in there that will destroy the different compositions, so the figure is only approximate. But the word "enough," if the Court please, means the quantity that will meet the requirements of the average healthy adult.

The Court: I still don't know how much milk to drink a day, approximately, to get the benefit of it, how much skimmed milk.

A. If the Court please, you will get the benefit of any amount of skimmed milk you drink, but you get some of this particular vitamin from other good food sources, from other good sources of food. We would have to drink too much milk, I think, if we should get all our vitamins from milk, then we would have to take iron capsules every day. That's one deficiency in milk, the lack of iron.

Q. You have used an expression in your next to the last answer to the Court. What do you mean by in vivo?

A. In vivo?

Q. Yes.

A. What does that mean? That means in the living person or the living animal. It is supposed to test your tests in biochemis..

Q. I will ask you whether or not there is evidence or is not evidence of a dietary deficiency of riboflavin in the diets of the American people.

A. Yes. That question could be answered pretty much like I answered the previous one. In certain groups of people, the poorer people, with poorer dietary habits or limited food intake, there is undoubted deficiency. With the population in general, I don't know. But there are

quite a number of competent people, on the basis of surveys and some clinical data, that take the view that deficiency in this vitamin is extensive. How extensive, I don't believe any competent person would say.

Q. What proportion of the riboflavin of whole milk is found in the skimmed milk prepared from it or in the skimmed milk left after taking the butter-fat from the milk?

A. Well, as I recall it, riboflavin is sensitive to light, it may be decomposed by light, and so the history of the milk and the milk bottle and all that will be a factor. Apart from that, practically all the riboflavin in whole milk will be found in the skimmed milk.

Q. Is milk an important source of this vitamin?

A. Yes.

Q. I ask you, based upon your statement with reference to this vitamin, or with reference to this matter, whether or not, in your opinion, it is to the interest of the health of the people as a whole that milk products, including skimmed milk, should or should not be widely consumed.

A. Yes, it is to the interest of health or the safety of health that all of the milk we produce should be used as human food. This vitamin is one of the factors—may not be the most important one—I think the protein and the lime are probably more important—but all of them are significant.

Q. I will ask you whether or not there is evidence of niacin deficiency in the American dietaries.

A. Yes, there we have some very definite data, in the care of pellagra. Frank clinical pellagra and stages or beginning of the disease may not now be recognized, despite the knowledge that Dr. Goldberger of the United States Public Health Service, gave us twenty years ago as to the cause of pellagra, despite that knowledge and the availability of niacin and nicotinicacid, we still have, on conservative figures, one hundred thousand Americans

suffering from pellagra every year, mainly in the southern states. How many more have what we would call subclinical pellagra that cannot yet be diagnosed, that is uncertain. Yes, there we have very definite dietary scandal in these United States. We have the knowledge and we have the means of prevention, but human nourishment is such that we haven't touched it.

The Court: Doctor, lest some of the judges on the higher courts want to read this record and do not know any more about it than this court, I would like for you to give me a definition of pellagra.

A. Oh, pellagra is a very protean or fundamental disorder involving the nervous system, the skin and the alimentary tract, and may proceed from a slight skin disorder, a slight disorder of the alimentary tract and a slight disorder of the nervous system, that may go on to death. The disease has been endemic in the United States and in other parts of the country for a long, long, time. At the beginning of the present generation, that is, fifty years ago, it was thought to be due to the eating of spoiled corn, spoiled Indian corn, because it was more prevalent where corn was a staple in the human dietary. But it isn't confined to the South, if the Court please. I remember very well the late Dr. Frank Billings, in the State of Illinois, was appointed to investigate the peculiar outbreak of pellagra in one of the penal institutions in the State of Illinois. The warden was paid so much per day for the number of inmates for food, and apparently he chiseled and didn't give the inmates adequate food and they developed pellagra, not like those in the South who eat, largely, the poorer people in the South, salt pork and molasses and corn bread. That is just a rough discussion.

The Court: Doctor, another question. I have a source here of getting some information. You speak about the

families of the South. It was observed in slavery times and later on the larger plantations that a great many of the white children were delicate and emaciated. They had fed to them the vegetables after being cooked. It was observed that the colored children that were fed upon the broth that came from cooking vegetables and different foods that they were fat and sassy. An old colored woman forty years ago in a homey way told me that the reason that colored folks were fat, healthy, robust, and that the white children were delicate and puny, as she used the word, was because when they cooked the food the colored folks had to eat the broths off of it and the offal, as she called it, and the white children got the better part of it. She said there was something in that broth and these offals they fed the colored children and that the white children miss and don't develop right. Is there anything in that theory of that old colored woman?

A. There's a good deal in it, if the Court please, and it is curious that that's probably how man has survived. Although ignorant of biochemistry in dietary needs, he has somehow, be it necessity of survival, learned fundamental truths in food and nutrition, before there was any biochemistry. I will come back to it again. Just let me illustrate. I have observed, myself and been corroborated by others, that when the wild gray squirrel becomes pregnant and nurses its young, it will eat bone. The male and the non-pregnant squirrel doesn't eat bone. The pregnant woman and the lactating woman, and the pregnant cow and the lactating cow, need more calcium and phosphorus. Somehow the squirrel has a sense of that. We humans have lost it. Of course, there are other factors in those families in the South, but I recall very well the accurate experiments in Denmark, that, using the common spud, potatoes, the sole source of food, for a year, they got along very well, as they drank the water in addition to eating the potatoes.

The Court: The potato water, you mean?

A. The potato water.

The Court: That they were cooked in?

A. Yes. Of course, we lose so much of the valuable things in the way of salts the way we cook our vegetables and throw away the juice, or, in the case of canned vegetables, frequently throw away the juice in the can. Yes, there was wisdom in her observation, unquestionably, but, of cougse, there are undoubtedly many other factors too, and my testimony as to the prevalence of pellagra in the South doesn't, of course, reflect on their intelligence or anything else in the South. They have the same brains we have.

The Court: Many of them think they are more refined, too.

The Witness: Well, that's a matter of relativity. But these dietary habits stick. It's one of the difficulties here, if the Court please, our habits, dietary habits. I saw an outfit from Texas in World War I, in an Army Division, going over England to France. When our military troops went over England on the way to France, we were rationed by the British, and that week we happened to have —the meat was frozen—Australian rabbits. The jackrabbit is a vermin, apparently, a rat, down in Texas, and that Texas outfit wouldn't touch this stewed Australian rabbit. Perfectly good food, but the notion that it is a vermin rendered it unpalatable.

Q. Doctor, you have used the word "protean" in connection with this pellagra. Is that the same protean that we have been speaking of, or is it spelled differently? Is there a distinction?

A. No, a protein (protean?) is a protein (protean?) wherever you get it. This niacin, nicotinicacid, is not the sole factor in pellagra. It involves pure protein and low protein, too. Pellagra is undoubtedly a complex disease, more complex than scurvy. It involves also pure proteins and the fat pork and the ordinary milk, corn meal, if that is the staple. Doesn't allow enough of the high biological valued proteins.

Q. Doctor, what proportion of niacin in whole milk is retained in skimmed milk?

A. Well, as I recall, milk, whole or skimmed, is not a very great source of niacin. There is some there, and it would be left, whatever is there would be left. There is some niacin.

The Court: When you say it would be left, you mean left in the skimmed milk?

A. Left in the skimmed milk, yes, sir.

Q. I will ask you whether or not niacin is or is not being advocated by governmental groups and by nutritional experts for an addition to basic foods.

A. Yes, it is being advocated particularly for a basic food in certain regions of the country, like, for example, corn bread or corn meal in the South. But I say advocated—it is not established yet.

Q. Is milk an important source of Vitamin C?

A. No.

Q. Do we normally rely on milk for this vitamin?

A. Not at all, can't rely on it.

Q. Then, as I understand you, neither whole milk nor skimmed milk furnish reliable quantities of this important vitamin?

A. No. There would be a little more in breast milk if the mother had good food and in fresh unpasteurized cow's milk, but Vitamin C is so quickly destroyed by heat

in the presence of air that whatever traces there is in cow's milk would be nearly all destroyed by pasteurization. You can forget milk so far as Vitamin C is concerned.

Q. And would your answer be the same as to its destruction with reference to evaporated milk?

A. Oh, yes, there is no difference.

Q. No distinction?

A. No distinction.

Q. Upon what type of foods do we depend for Vitamin C?

A. Vegetables, fruits, apples, citrus fruits, green leaves of any kind, raw potatoes or raw meat; that is, we can get enough Vitamin C from any of those sources. In this country it is usually said we got to have citrus fruits. Well, citrus fruits, of course, a very fine source of Vitamin C and other valuable things. Speaking personally, if I may be allowed, I had never seen an orange, lemon or grapefruit or a tomato, much less tasted one, until I was sixteen years old, so you can get along reasonably without any of them, provided you have other things, namely vegetables, carrots—eating some of them raw—apples of all kinds, pears, berries, that kind of things, or as Vilhjalmur Stefansson showed in the Artic, eating some of your meat raw.

Q. Doctor, will you be kind enough to state what is the function and effect of Vitamin C upon the public health, in other words, with reference to disease, absence or presence thereof?

A. Well, frank scurvy,—absence of Vitamin C for a sufficiently long time produces scurvy. Scurvy is well known. We've had scurvy in this country way back when the people had to depend on dried or salted foods, say, over a winter, two or three months. At present, frank clinical scurvy is almost unknown in all parts of the United States, but certain disturbances in the blood ves-

sels, certain disturbances in other parts of the body, are, by many, now believed to be due to too little of this vitamin. It isn't frank scurvy; it's the beginning of the disorders. That kind of condition is probably prevalent, but we don't know yet that it is definitely Vitamin C. You see, ordinarily when you give them these foods you give them more than Vitamin C. However, I am certain, if the Court please, that some day we are going to discover too small intake of Vitamin C as an insidious beginning in many defects in man, before the frank scurvy, swelling of the joints and soreness of the joints, the looseness of the teeth and soreness of the gums, before that is in evidence.

Q. You have testified that Vitamins A and D are fat-soluble vitamins, is that correct?

A. That's correct.

Q. Does whole milk contain Vitamin D?

A. Yes, some, depending—now, milk, you mean whole cow's milk?

Q. Whole cow's milk.

A. Yes, it contains D, but that will depend on the diet and whether the cow is out in the sunshine or has artificial ultraviolet light. It isn't a very great source of Vitamin D. It is more of a source of A, and that's all variable—chiefly low in the winter milk and very high in the summer milk—but there is some Vitamin D in cow's milk.

Q. Doctor, am I correct in this summary of what you have said, namely, that skimmed milk contains essentially all of the ingredients of whole milk, with the exception of butter-fat, Vitamins A and D?

A. Yes, that would be a summary, an accurate summary.

Q. Am I correct also in stating that the amount of Vitamin D found in whole milk is a variable quantity, dependent upon whether or not the animal producing the milk has been eating green things in the spring or during the fall and winter has been living upon dried foods?

A. And sunlight. A body can make Vitamin D by the action of ultraviolet light on some of the chemicals in the blood or in the skin. That is correct. The Vitamin D ordinarily in cow's milk is so insignificant that some concerns are putting out Vitamin D enriched whole milk, and that's significant, some value for children particularly.

Q. With reference to the Vitamin A and your statements with reference to it, what is the cause of a variation in the amount of that in whole milk?

A. Well, animals apparently can't make Vitamin A. They got to get this vitamin from the vegetable kingdom where it is produced in the growth and metabolism of plants and seeds under the influence of sunlight. The amount of Vitamin A then in the cow's milk, since the cow can't make the vitamin, will depend on the amount of Vitamin A in the diet of the cow, and that's exactly the same with the mother and her breast milk. Her breast milk would be high or low in Vitamin A, depending on what there is in the diet that the mother lives on, and the green things, the green fodder of the cow in the spring, summer and early fall, and the whole richer in Vitamin A than the diet of the staple in the winter, so there may be three or four hundred times variation in the Vitamin A level in otherwise good milk between the winter and the summer.

Q. Would it, in your opinion, contribute to the health of the people if a product containing milk were to contain uniform quantities of Vitamin A and D in each package?

A. I think it would be significant for a certain proportion who, because of habits or because of poverty, are on the ragged edge, as far as Vitamin A intake is concerned, for a considerable proportion of the people. I wouldn't say that it would be for all the people where the Vitamin A intake is very large. Fortunately, the green vegetable, raw vegetable, eating habit is increasing in the United States. Liver, for example. The liver of our slaughtered

animals is no longer poor stuff to be sent to some degraded people. It is good food, and the liver is full of Vitamin A, and the green vegetables, yellow vegetables, carrots, one of our richest sources and cheapest source of pro-Vitamin A, the first stage, but when we get that pro-Vitamin A we can make Vitamin A of it in the body.

Q. Now, Dr. Carlson, it has been testified in this case that Milnot and Milnut contain 2,000 U. S. P. units of Vitamin A and 400 U. S. P. units of Vitamin D in each 14½ ounce can are less than equal to or greater than the amounts of said vitamins found in an equivalent amount of fresh whole milk.

A. Oh, yes, much more of D in these two preparations under issue now, much more D, and certainly much more A than in fresh winter milk. I don't think that would be true in the case of summer milk. Some summer milk is higher than the proportion put in.

The Court: In both A and D?

A. No, no, only in A, not in D. D is higher universally in these two products, but the summer milk, the best summer milk, I think, is higher than this, but the average—if you average both summer milk and winter milk this product in A concentration would probably come up even above the average best grade.

Q. Again asking you to take it that it has been testified in this case that Milnut and Milnot contain 2,000 U. S. P. units of Vitamin A and 400 U. S. P. units of Vitamin D in each 14½ ounce can. I will ask you whether or not these quantities of Vitamin A and D are less than equal to or greater than the amounts found in an equivalent amount of evaporated whole milk.

A. Well, in Vitamin D, evaporated whole milk is poorer than this product. In Vitamin A, that would depend on whether it is summer milk or winter milk. If it is sum-

mer milk to start with, you may have the same or a little higher. If your evaporated milk is winter milk, it is certain to be lower than in these two products.

Q. Returning to skimmed milk, I will ask you whether or not skimmed milk is a by-product of butter and cream products.

A. Yes, decidedly. As long as we demand and get butter and cream for our tables, there will be skimmed milk. That's inevitable.

Q. For what is skimmed milk now used?

A. Well, there is some used as human food. There is actual fluid skimmed milk on the market. Some skimmed milk is dry; and in some cases a little dried skimmed milk is put in bread and baking, some of it used for cooking; but by far the greatest part of skimmed milk never goes off the farm. That is, they send the cream to the creamery and in that case the skimmed milk is used for hog feed or calf feed or cooked up for chicken feed, or waster. Considerable of the skimmed milk goes into industrial plastics and paints, which for twenty-five years I have considered a national crime, to use this high biological valued protein for plastics. That's the way it goes. The situation here, this waste, so far as human food is concerned, of this enormous quantity of high valued food almost parallels what we are doing with our wheat, milling out thirty per cent of the most valuable part, proteins, vitamins and salts, in our wheat berry, and feeding it to hogs and cattle, and we eat the starch.

The Court: Then, as I understand, the whole wheat or cracked wheat is far more nutritious and beneficial to the human body than this highly advertised and highly refined cake flour and white flour?

The Witness: Oh, of course, of course, but there is—well, I won't mention that, but practically, if the Court please, whole wheat flour is almost unobtainable in Amer-

ica on the market. It is called whole wheat, but it isn't in most cases, I am sorry to say.

The Court: How about cracked wheat?

The Witness: Yes, that's very likely most of it whole grain. It is different in Europe where you can get dry or whole wheat genuine. About the only whole cereal that we eat here in America to any extent is oatmeal. That's the whole grain.

Q. I take it from what you have said, Doctor, that you consider—if I am wrong you correct me—that the throwing away of skimmed milk by the farmer is not only wasteful but that every effort should be made to remedy it, is that true?

A. Yes, only I won't be misunderstood in the term "throwing away." When the farmer feeds it to hogs, cattle or chickens, it isn't really thrown away. They got to be fed anyway, but in feeding this valuable material—I mean valuable from the point of view of human nutrition, not valuable in dollars and cents——

Mr. Matthews: I understand that.

A. (Continuing)—in feeding that to animals that later become human food, we get only about five to ten per cent of the food value back, so it is a nutritional waste in that sense, even putting the hog and the rooster on a quality with ourselves.

Q. I take it, then, that approximately ninety to ninety-five per cent of the value of skimmed milk, that is, the nutritive value, if fed to a hog or an animal of that kind, is lost——

A. So far as human nutrition is concerned.

Q. (Continuing)—is lost in the return to the human of the hog itself?

A. That is correct.

Thrown off by elimination or otherwise?

A. Yes, that factor is well known.

The Court: May I interpolate another question?

Mr. Matthews: Certainly.

The Court: Doctor, I remember my mother used to take skimmed milk and make what we called cottage cheese.

The Witness: Ah—

The Court: I am interested in knowing what that cottage cheese is, or what part of the milk.

The Witness: That is very simple, if the Court please. That is a precipitated protein of the milk that we have been talking about. When you get the cottage cheese then you get that valuable factor out of the skimmed milk, the protein, but you lose largely the calcium. That's still in the water. Well, it isn't water, it isn't pure water. You lose the calcium. You lose largely the vitamins in skimmed milk, but you do get the proteins, and cottage cheese is no different from other cheese, which is a precipitate of these valuable proteins in milk.

Q. Doctor, is the federal government, to your actual knowledge, making any effort to remedy this situation with reference to the use or known use of skimmed milk for human consumption?

A. Oh, decidedly, yes.

Q. Will you tell the Court in what way?

A. Well, through education.

Mr. Matthews: Pardon me?

A. Through education, state-wide, nation-wide education and persuasion. So far as I know, as yet no actual proposals have legislation, but education, very decidedly.

Q. I will ask you whether or not the Army and Navy, our Armed Forces, at the present time are utilizing and using dried milk products.

A. I am quite sure—I don't know about dried skimmed milk. I wouldn't be surprised. I should know, as a matter of fact, because I went over the whole thing up in Minneapolis not long ago with Professor Keyes, who has been advisor to the Department of the Army, having to do with this. They are using dried milk, I know, but dried skimmed milk, I cannot say. I think they are.

Q. Is skimmed milk given high consideration in Lend Lease feeding?

A. Yes, dried skimmed milk is one of the valuable articles, that's true, but the problem at present, you see, is the getting it off the farm, where they are only carting the cream to the creamery, or butter-fat, and with decreased transportation it is not so easy.

Q. If it were made possible to secure from the farmers the skimmed milk, as well as the cream and butter-fat, would you say that the use of skimmed milk would be a very important element of our Lend Lease feeding of the people of the world?

A. Yes, it's meat protein, and there are other things, and in an over-all under-nutrition or starvation, as we have it in Europe and in other parts of the world, to get good protein is one of the major factors, and the skimmed milk would furnish that where meat and eggs and fish or whole cereals are not available.

Q. I will ask you whether or not it is or is not your opinion that the use of skimmed milk in a product such as Milnot and Milnut is in the interest of the health of the people.

A. It's in the interest of the health of the people as one avenue of saving skimmed milk for human food. At present it's a small concern, considering the limit of the output and the size and population of the United States. It is one of the many ways of saving skimmed milk for human food.

Q. How do you rank such a product as Milnot and Mil-

nut in comparison with other foods in the American dietary?

A. Let's see if I understand your question. Other foods? Well, it would come up, way up, with whole milk, meats, fish, eggs, up in that category somewhere.

Q. Doctor, just a few more questions and then I shall close. I will ask you whether or not skimmed milk is a wholesome and nutritious food.

A. It is.

Q. I will ask you whether or not it is injurious to the public health.

The Witness: As a food, you mean?

Q. That's right, as a food.

A. Couldn't possibly be.

Q. This is more or less of a summary here, if you please.

A. Yes.

Q. I will ask you whether or not cotton-seed oil is a wholesome and nutritious food for human consumption.

A. Refined cotton-seed oil is a good human food.

Q. And I will ask you whether or not it is in any way injurious to health when consumed by the human.

A. No, it is not injurious to health. Of course, you understand, if the Court please, in all these answers that any one of good foods can be eaten to a point where they become injurious. You can kill yourself even with perfectly good food if eaten to a point where it will become injurious. I understand eaten in the ordinary quantities.

Q. That's the manner in which I should have framed my question.

A. Yes.

Q. I will ask you whether or not coconut oil is a wholesome and nutritious food for the individual eating it, and eating it in normal quantities.

A. It is.

Q. And whether or not there is anything injurious to human health in the using of coconut oil for human food in normal quantities.

A. There is nothing injurious, nothing known to be injurious.

Q. I will ask you whether or not fish-liver oils, containing Vitamins A and D as you have described, are wholesome and nutritious when taken by the human body in normal quantities.

A. They are.

Q. And whether or not there is anything injurious in fish-liver oil containing Vitamins A and D to the human body or human health when taken by the human in normal quantities.

A. It is not.

Q. Now, I will ask you whether or not the combination of them, that is, cotton-seed oil, fish-liver oil containing Vitamins A and D, and skimmed milk, or the combination of coconut oil with fish-liver oil containing Vitamins A and D, and skimmed milk, whether either of them are wholesome and nutritious foods when combined and used in normal quantities.

A. They are.

Q. And I will ask you whether or not the combination of either of those ingredients that I have named, when consumed by the human in normal quantities, is injurious in any way to the human using them in that manner.

A. They are not injurious. Now, may I add to my answers to all these that I am assuming in all these answers the average normal human being, because there are a few individuals who have special idiosyncrasies, both to fats and to proteins and to various things, so-called allergies. They are eliminated. I am answering here for the average normal human being. Secondly, by good food, I don't mean perfect food that you could subsist on totally and indefinitely without any other additions.

Q. Doctor, I will ask you whether or not you would make this same addenda or qualification or explanation if the question had been asked of your with reference to whole milk or evaporated milk.

A. Certainly, certainly.

Mr. Matthews: That is all.

. . . . . .

Melvin Hauser—for Defendants—Direct:

(Transcript, pp. 449-450)

By Mr. Matthews:

Q. Will you state your name, please?

A. Melvin Hauser.

Q. How old are you, Melvin?

A. 32.

Q. Where were you born?

A. Near Litchfield, Illinois.

Q. Where have you lived all your life?

A. In the vicinity of Litchfield, Illinois.

Q. You are the son of Charles Hauser, one of the defendants in this case?

A. I am.

Q. What education have you had, Melvin?

A. I went through grade school and high school at Litchfield, Illinois, and graduated from the University of Illinois in 1934.

Q. What degree did you receive from the University of Illinois?

A. Bachelor's Degree from the School of Commerce.

Q. Have you had an education along the elective subjects in agricultural college involved in the production of dairy products, such as ice cream, and so forth?

A. Yes. I took about 35 hours of electives in the dairy school while attending the University of Chicago. These courses were general dairy manufacturing.

The Court: How old are you?

A. 32.

Q. When did you graduate?

A. In '34.

* * * * * * * *

(Transcript, pp. 450-455):

Mr. Matthews: Have you had any education in general chemistry?

A. Yes.

Q. To what extent, please?

A. I took two courses in chemistry, amounting to 10 hours.

Q. And in dairy bacteriology?

A. Yes. I took two semesters of dairy bacteriology.

Q. Have you had any education in the field of biochemistry or analytical chemistry?

A. Yes, sir.

Q. I will ask you when you did begin your work in association with the Litchfield Creamery Company?

A. I started when I was probably fifteen or sixteen years old during summer vacations and have worked for them continuously since my graduation in 1934.

Q. It is in evidence here that the Litchfield Creamery Company has two places of business, namely, at Litchfield, is it Illinois?

A. Yes, sir.

Q. And Warsaw, Indiana. Is that correct?

A. That is correct.

Q. I will ask you whether or not you occupy any official position with either of these branches of the Litchfield Creamery Company?

A. Yes. I am treasurer and assistant secretary of the Litchfield Creamery Company.

Q. Speaking of it as a corporation?

A. Yes, sir.

Q. Do you have any particular position with either plant independently of the other at Warsaw or Litchfield?

A. No. My position is more with it as a corporation.

Q. Thank you. Do you recall when the Warsaw branch of the Litchfield Creamery Company began operations?

A. Yes, sir. We purchased the Warsaw plant in 1936.

Q. And from that time on what position, if any, did you occupy with reference to the Warsaw plant?

A. Well, when we purchased it in 1936 I lived there for about sixteen months and acted as general manager of that plant, and since then I have supervised the plant.

Q. Thank you. When were you made treasurer and assistant secretary of the Litchfield Creamery Company?

A. In 1939.

Q. I will ask you whether or not you have held that position since that time, or those positions?

A. I have.

Q. With reference to the Carolene Products Company, what position, if any, do you hold or occupy with reference to that company?

A. I have charge of the advertising of the Carolene Products Company and also assist in the formulating of sales policies of that company.

Q. And of what does your advertising consist? In other words, what are your mediums of advertising?

A. We use newspapers and radio.

Q. With reference to the Carolene Products Company, who is the president?

A. My father, Charles Hauser.

Q. Who are the other officers?

A. Mr. W. H. Hartke is vice-president. Martin Hauser is secretary and treasurer.

The Court: Just a minute now. "Charles Hauser, my father, is president" of what?

A. Carolene Products Company. W. H. Hartke is vice-president.

Mr. Matthews: Q. You say Martin Hauser is what?

A. Secretary and treasurer.

Q. Is he your brother?

A. Yes, sir.

Q. Do you have any other members of your family that are active in this company besides the ones you have named?

A. Yes, sir. I have another brother, Victor Hauser.

The Court: Secretary-treasurer of what company?

A. Carolene Products Company.

Q. Who is the president of the Litchfield Creamery Company?

A. Mr. W. H. Hartke.

Q. Who is the vice-president, if you know?

A. Mr. L. W. Cline.

Q. What is the business of the Litchfield Creamery Company?

A. The Litchfield Creamery Company manufactures the products, Milnot and Carolene, and also manufactures a general line of dairy products.

Q. Will you name the various kinds—if there are various kinds—of dairy products manufactured by the Litchfield Creamery Company?

A. They manufacture evaporated milk, butter, ice-cream, pasteurized milk, cottage cheese.

The Court: The Litchfield Creamery Company manufactures Milnut, Milnot and Carolene?

A. At the present time just Milnot and Carolene. We

did manufacture Milnut and also these other dairy products which I mentioned.

Mr. Matthews: Now, Melvin—pardon me if I call you Melvin to distinguish you from your father or brother. Will you describe to the Court in detail the process of manufacture of Milnut when you manufactured it and state when you ceased to manufacture it?

A. Prior to 1940—about the middle of 1941—we manufactured Milnut and Carolene.

The process consists of buying whole milk from the farmers. It is picked up by route men who bring it to our plants where it is tested for off flavors and odors and sediment and acidity, and then it is dumped. The weight is taken of the milk from each producer each day. The milk is then separated and the cream flows into the cream pasteurizing room, where it is pasteurized and the skimmed milk is then pre-heated and run into what we call hot wells.

In the hot wells coconut was mixed with the skimmed milk and the combination was then heated to approximately 208 or 210 degrees, from where it went into the evaporating pan.

Q. Did you say "pan" or "tank?"

A. Pan. This a large stainless steel tank which operates under vacuum.

Q. Let me interrupt you a moment. I think this will be much more interesting to the Court if I may be permitted to offer in evidence at this time pictures that have been taken at the direction of this witness of the Litchfield Creamery Company plant at Litchfield, and at the same time possibly the pictures that we have taken in the same manner of the Warsaw plant branch of the Litchfield Creamery Company at Warsaw, Indiana. I will show them to counsel.

(Handing pictures to counsel.)

I hand these to the Reporter with the request that each be identified as Defendants' Exhibits 2 to 8, inclusive.

Thereupon, the pictures were marked Defendants' Exhibits No. 2 for Identification to Defendants' Exhibit No. 8 for Identification, inclusive.

Mr. Matthews: And these 9 to 11 for Identification.

Thereupon, three pictures were marked Defendants' Exhibit No. 9 for Identification to Defendants' Exhibit No. 11 for Identification, inclusive.

Mr. Matthews: We start with Exhibit 2 as we already have an exhibit. May the record show that we have had identified as Defendants' Exhibits 2 to 8, inclusive, various views of the Litchfield Creamery Company branch at Litchfield, Illinois, consisting of seven photographs, and Defendants' Exhibits 9, 10, and 11 for Identification being various views of the Warsaw branch or plant of the Litchfield Creamery Company at Warsaw, Indiana.

We now offer them in evidence.

Mr. Reno: These are objected to, Your Honor, as being immaterial.

. . . . . .

(Transcript, p. 457)

Mr. Matthews: . . .

Mr. Hauser, I will ask you whether or not these photographs correctly and accurately depict the conditions insofar as the exterior and interior of the respective plants at Litchfield, Illinois, and Warsaw, Indiana, are concerned, covering the year 1941?

. . . . . .

(Transcript, p. 458)

A. Yes.

Mr. Matthews: Q. Were these photographs taken at your direction?

A. Yes, sir.

. . . . . .

Q. I will ask you whether or not these photographs and each of them were taken by a recognized competent photographer?

A. Yes. They were taken by a regular commercial photographer.

. . . . . .

(Transcript, pp. 458-459)

Mr. Matthews: Q. Will you give his name?

. . . . . .

(Transcript, p. 459)

A. Murray took the pictures at Litchfield. I don't recall the name of the firm that took the pictures at Warsaw.

Mr. Matthews: Q. Were they selected by you as competent photographers to depict these exterior and interior scenes?

A. Yes, sir.

. . . . . .

(Transcript, pp. 461-463)

The Court: That brings me to the second question as to the competency or incompetency of the photographs. This Court, in order to be consistent with its previous ruling, feels impelled to sustain the objection of the Government on account of the immateriality of the photographs or the matters portrayed or depicted thereby.

The question the Court is trying in this case, according to his idea, is was there a violation of the Filled Milk act by these defendants. That Filled Milk act makes it an offense to ship any milk in which anything other than butter-fat has been filled or combined, desiccated, and so forth. Several words are used there.

I realize that the defense have a perfect right to put these photographs in as a part of their idea of a defense in this case, but as I view this situation whatever they show is immaterial in the trial of this case.

You may proceed, Mr. Matthews, and put in your photographs and take an exception to the ruling of the Court which you have done on many occasion before, and it is the only thing for you to do in trying the case from your standpoint.

Mr. Matthews: Our exception is saved?

The Court: Yes.

Mr. Matthews: I will ask the reporter to mark these as Defendants' Exhibits 2 to 8, inclusive, and 9 to 10, and 11, inclusive.

Defendants' Exhibits Nos. 2 to 11.

The photographs were thereupon marked Defendants' Exhibit No. 2 to Defendants' Exhibit No. 11, inclusive.

Mr. Matthews: Q. Mr. Hauser, pieces of paper are attached to the backs of these exhibits which are not at this time a part of the exhibit. In other words, on the other side there is descriptive matter of the scene on the front of the photograph. I will ask you whether or not you had those tabs attached to these various exhibits for that purpose?

Mr. Reno: The same objection, and may we interpose that objection to all of this testimony concerning the photographs so we won't have to keep interrupting?

Mr. Matthews: I think that is proper, and we will consider an objection to each one and the ruling of the Court sustaining it and the exception on the ground stated before.

The Court: All right. With that understanding, Mr. Reporter, you may show an objection to each question and the sustaining of the objection by the Court and an exception reserved to the defense.

Mr. Matthews: The basis for each and every objection being that which has been stated, being immaterial, and the ruling of the Court sustaining it.

The Court: Yes.

Mr. Reno: Yes.

Mr. Matthews: Q. Now, the question I ask, did you have these tabs attached to the back of each of these photographs put on there and do they correctly state what the photograph is on the other side?

A. Yes.

. . . . . .

(Transcript, p. 464)

Mr. Matthews: Q. I hand you here Defendants' Exhibit No. 2. I will ask you state what it is, what it depicts and what it shows?

A. It shows the exterior of the Litchfield Creamery Company's plant at Litchfield, Illinois, together with a portion of the warehouse building.

Q. I now hand you Defendants' Exhibit No. 3 and ask you to state briefly and concisely what that depicts?

A. That is another exterior view of the Litchfield Creamery Company plant located in Litchfield, Illinois, together with the warehouse.

. . . . . .

(Transcript, pp. 464-473)

Q. I hand you Defendants' Exhibit No. 4 and ask you to state what that photograph shows with reference to the plant and what part of it?

A. It shows the filling room together with the storage

tanks for holding products before canning, all located in our plant at Litchfield, Illinois.

Q. Unfortunately, I have not marked these photographs in the proper order but nevertheless we can assemble them. I hand you now Defendants' Exhibit No. 5 and ask you to state the same thing with reference to that picture, in other words, what it depicts or shows?

A. It shows the separating room and separators of the Litchfield Creamery Company's plant at Litchfield, Illinois.

Q. I now hand you Defendants' Exhibit No. 6. Will you please make the same statement with reference to the location, and so forth of that picture?

A. It is the milk-receiving room of the Litchfield plant of the Litchfield Creamery Company.

Q. I will hand you Defendants' Exhibit No. 7 and ask you to state where that photograph was taken and what portion of the plant it depicts, if any?

A. It was taken of the Litchfield plant and shows the canning room and a portion of the balcony, including the outside of the laboratory.

Q. I hand you now Defendants' Exhibit No. 8 and ask you to advise the Court as to that view, where it was taken, and so forth?

A. It is a photograph of one of the sterilizing lines located in the Litchfield plant.

Q. I now hand you Defendants' Exhibit No. 9 and ask you to state whether or not it depicts the plant, and so forth?

A. It shows the exterior of the Litchfield Creamery Company plant located at Warsaw, Indiana.

Q. And Exhibit No. 10?

A. Another view of the Litchfield Creamery Company plant, including the warehouse, all located at Warsaw, Indiana.

Q. And Exhibit No. 11?

A. The milk-receiving room of the Litchfield Creamery Company's plant at Warsaw, Indiana.

Q. Mr. Hauser, you have spoken of seven pictures which have been introduced here as Defendants' Exhibits 2 to 8, inclusive. I will ask you whether or not they are all scenes having to do with the Litchfield Company's plant at Litchfield, Illinois, the last three exhibits being 9, 10, and 11, whether or not they have to do with the Litchfield Creamery Company's plant at Warsaw Indiana?

A. Yes, sir.

Q. Now, I will ask you to state whether or not the equipment and machinery used in the Warsaw, Indiana, plant of the Litchfield Creamery Company is of the same type as that of the Litchfield Creamery Company plant at Litchfield, Illinois?

A. Yes, sir. The same general type.

Q. I believe when I interrupted you for the purpose of offering these photographs we had reached a stage in the process where the milk had already received the coconut oil and was in the evaporating pans, if I recall. Will you take up the process from there on?

A. While the compound is in the evaporating pan vitamin concentrate is added to it.

Q. What do you mean by that?

A. We introduce a concentrate of Vitamins A and D directly into the product as it is being evaporated.

Q. What is the character of the vitamins?

A. It is a fish-liver oil concentrate.

Q. Where is the oil secured from?

A. From the Atlantic Coast Fisheries.

Q. While passing, where is the coconut oil that you have described, where is that secured from?

A. We secure that from Durkee Famous Foods, Chicago.

Q. This also applies to the cotton-seed?

A. Yes. In the vacuum pan the volume is reduced to

slightly half the original volume by the evaporation of water.

Q. Will you tell the Court how that is done? How do you evaporate the water out?

A. The evaporating pan or vacuum pan operates under a vacuum, and from there the product boils in the first vacuum at about 180 degrees and in the second vacuum, because of a greater vacuum, it boils at about 130 degrees. The water rises in the form of steam and is condensed by the circulation of colder water in the top of the evaporating pan, and is carried off in that manner.

It is a continuous operation, the product is constantly coming into the evaporating pan and the finished product is constantly leaving the evaporating pan.

After the product leaves the evaporating pan it passes through a homogenizer which is simply a machine which forces the product through small valves at a pressure of about twenty-five hundred pounds per square inch, and in that way renders the product entirely homogenous.

The Court: That may be clear to you, but it is not very clear to me.

A. It insures a uniformity of the vitamin concentrate and of the coconut fat through the entire product, and breaks up the globules into very small particles and distributes them uniformly.

Q. Would the same thing apply to cotton-seed oil as coconut?

A. Yes.

Q. There is no distinction?

A. From the viscolizer, or homogenizer, the product is cooled to about 40 degrees and then placed in storage tanks. There it is tested by the laboratory and standardized so that the finished product will contain at least six per cent fat and twenty per cent of skimmed milk solids.

From the storage tanks the product goes to the filling machine, where the cans are filled with the product and then are automatically conveyed to the sterilizing equipment where they are first pre-heated, then sterilized and later cooled.

The cans are hermetically sealed as a part of the filling operation. After leaving the sterilizing equipment the cans go through the labelling machine and are packed in cases and stored in the warehouse.

Q. Does the Litchfield Creamery Company have its own laboratory for its two plants?

A. Yes.

Q. And its own chemist?

A. Yes.

Q. What is the name of the chemist?

A. Hiram Gooch.

Q. Was he employed by you during the year 1941?

A. Yes, sir.

Q. And 1940?

A. Yes, sir.

Mr. Matthews: I will ask you whether or not disodium phosphate is added during any stage of the process of manufacture, and if so, what is the purpose, if you know?

A. Disodium phosphate is added whenever necessary. That is, certain seasons of the year it is necessary and at other times it is not necessary. The purpose of disodium phosphate is to stabilize the milk salts so that the product will withstand sterilization and will not become coagulated in the can during sterilization.

Q. You spoke of the Litchfield Creamery Company also manufacturing evaporated milk. I will ask you if disodium phosphate is so used for that same purpose in making evaporated milk?

A. It is.

The Court: You mean, Mr. Matthews, evaporated whole milk.

Mr. Matthews: Evaporated whole milk. Thank you.

A. Yes, sir.

Q. Do you know whether or not if that addition to the use of disodium phosphate is standard practice in milk products of this type?

A. Yes, sir, it is.

Q. Now Melvin, I will ask you whether or not at the request of counsel in this case you have ascertained from the records of the Litchfield Creamery Company certain data bearing on the production of various dairy and milk products?

A. I have.

Q. You may refer to that for the purpose of answering questions. Do not read from them, but merely for the purpose of refreshing your recollection and making your testimony more accurate, will you state to the Court how many pounds of milk were purchased by the Litchfield Creamery Company at its Litchfield plant in the year 1941?

A. More than one hundred seventeen million pounds.

Q. And in 1942?

A. More than one hundred thirteen million pounds.

Q. How many pounds of milk were purchased by the Litchfield Creamery Company and used in the Warsaw plant of that company in 1941?

A. More than forty-five million pounds.

Q. And in 1942 at Warsaw?

A. More than fifty-seven million pounds.

Q. I will ask you whether or not in those figures that you have named of pounds of milk purchased there is included some skimmed milk purchased?

A. No, sir.

Q. All whole milk?

A. Yes, sir.

Q. I will ask you to state to the Court how many cases, I believe, are we safe in stating when I refer to a case, 48 cans in every case?

A. Yes, sir.

Q. How many cases of Milnot and Carolene were manufactured by the Litchfield Creamery Company at its Litchfield plant in 1941?

A. 1,150,000.

Q. And at the Warsaw plant in 1941?

A. 440,000.

Q. And at the Litchfield plant of the Litchfield Creamery Company in 1942 how many cases of Milnot and Carolene were manufactured?

A. 740,000.

Q. And at the Warsaw plant in 1942?

A. 375,000.

Q. I will ask you to state how many cases of evaporated milk were manufactured by the Litchfield Creamery Company at its Litchfield plant in 1941?

The Court: You mean exaporated whole milk.

Mr. Matthews: Evaporated whole milk. Thank you.

A. 17,500.

Mr. Matthews: And in 1942 at the Litchfield plant?

A. 350,000 cases.

Q. How many cases of evaporated whole milk were manufactured by the Litchfield Creamery Company at its Warsaw plant in 1941?

A. 10,000 cases.

Q. And in 1942?

A. 201,000 cases.

Q. In these answers you are giving, you are giving round figures, are they always the minimum?

A. They are below what the actual figures are.

Q. I will ask you whether or not the Litchfield Creamery Company sold any evaporated whole milk to the Government in 1941?

A. Yes.

Q. How many cases?

A. 4,000 cases were sold in 1941.

. . . . . .

(Transcript, p. 473)

Mr. Matthews: Q. I will ask you to state how many cases of evaporated whole milk were sold to the Government by the Litchfield Creamery Company from its Litchfield plant in 1942?

. . . . . .

A. 363,000 cases.

Mr. Matthews: Q. And at the Warsaw plant how many cases of evaporated whole milk were sold to the Government by the Litchfield Creamery Company in 1942?

. . . . . .

(Transcript, p. 474)

A. 208,000 cases.

Mr. Matthews: Q. Will you tell the Court how many pounds of butter were manufactured by the Litchfield Creamery Company at its Litchfield plant in 1941?

. . . . . .

A. You asked for the pounds of butter manufactured at the Litchfield plant of the Litchfield Creamery Company in 1941?

Q. That is correct. Let us have the exact figures.

A. 4,656,073.

Q. And in 1942 by the same company at the same plant?

A. 3,262,313 pounds.

Q. How many pounds of butter were manufactured by the Litchfield Creamery Company at its Warsaw plant in 1941?

A. 1,559,247 pounds.

Q. And in 1942?

A. 1,989,128 pounds.

Q. Will you state generally how many pounds of butter a day that amounts to by the two plants of the Litchfield Creamery Company approximately?

. . . . . .

(Transcript, pp. 474-475)

A. That is, roughly, 20,000 pounds a day or 18,000.

Mr. Matthews: Q. Will you state the average number of milk purchases, that is farmers I presume, that sold to the Litchfield Creamery Company at the Litchfield plant itself, whole milk in 1941?

A. 3,336.

Q. In 1942?

. . . . . .

(Transcript, pp. 477-478)

A. Yes. We purchased milk in 1942 at the Litchfield plant from 3,066 producers, on the average.

Q. I will ask you to state the average number of milk producers from whom the Litchfield Creamery Company purchased milk and which was delivered to the Warsaw plant of the company in 1941.

. . . . . .

(Transcript, pp. 478-480)

A. 1,471.

Q. And in 1942?

A. 1,676.

Q. Will you state how many cases of Milnot and Carolene were sold by Carolene Products Company in 1941?

A. 1,480,661 cases of Milnut, Milnot and Carolene.

Q. That includes all three?

A. Yes, sir.

Q. In 1942 you were only selling, as I understand it, Milnot and Carolene?

A. That is correct.

Q. How many cases, then, of Milnot and Carolene were sold in 1942 by the Carolene Products Company?

A. 1,320,532.

Q. Melvin, there are described in this indictment three separately-named products, namely, Milnut, Milnot and Carolene, as having been shipped by the Carolene Products Company in 1941. Confining yourself to that year, state to the Court what, if any, difference there was between the three named products shipped by the Carolene Products Company in 1941. State that distinctly, if there is any difference.

A. Well, the Milnut and also Carolene were manufactured by combining evaporated skimmed milk, coconut oil and high potency fish-liver oils. We also sold Milnot and Carolene, which was composed of evaporated skimmed milk, refined cotton-seed oil and high potency fish-liver oil.

Q. When was it that you ceased the manufacture of either Carolene or Milnut containing coconut oil as one of the ingredients?

A. In May or June of 1941.

Q. Since that time have you sold any Milnut?

A. We have not.

Q. And since that time, will you state what, if any, difference there is between the products Carolene and Milnot, which you have sold since you ceased the production of either one of these articles with the element of coconut oil as a part thereof?

A. There is no difference between the Milnot and Carolene which we have sold since that time.

Q. Is it the same product, contain the same ingredients?

A. It is.

Q. And the difference is in what?

A. Entirely in the name.

Q. On yesterday you described the method of manufacture by the Litchfield Creamery Company of these respective products. I will ask you whether or not the method, which includes the mix and the proportions, and so forth, of the various ingredients that you described, was uniform between the two plants and in the two plants, one at Warsaw and the other at Litchfield.

A. Yes, the methods are identical.

Q. During 1941?

A. Yes sir.

Q. They were identical in process?

A. Yes, sir.

Q. And the formula for the mix, I will ask you whether or not that was identical.

A. It was.

Q. Melvin, you testified on yesterday with reference to the milk solid in this product as being twenty-six per cent of the total, of which twenty per cent were certain solids and six per cent were fats. I will ask you what is the breakdown in percentage of the milk solids, other than fats, contained in the twenty per cent that you have described.

. . . . . .

(Transcript, pp. 480-483)

Q. Will you state what you mean by twenty-six per cent solids, broken down into twenty per cent solids, other than fat, and six per cent fat. Tell us what that means.

A. Yes, yesterday I testified, I believe, that the finished product contained six per cent fat and twenty per cent

solids, not fat, or skimmed milk solids. In other words, the twenty per cent is skimmed milk solids, and contain no fat.

Q. Will you break that twenty per cent down?

A. That is composed of, on the average, of approximately ten and seventy-five one-thousandths per cent carbohydrates, seven and seventy-five one-thousandths per cent of protein, and one and sixty-five one-hundredths per cent of minerals.

Q. And what is the balance of the product in the can?

A. It would be water.

Q. And what percentage, do you recall—that is a matter of mathematical calculation—but do you recall?

A. Well, it would be seventy-four per cent, because we have twenty-six per cent of solids.

Q. Melvin, I hand you Government Exhibit 27, being a can of Milnot, and we have stipulated that we make no distinction between the Milnot, Carolene and Milnut cans introduced by the Government, as to content. I will hand you this exhibit, which refers to Count No. 2, and ask you to state whether or not the products that were shipped by you in 1941, as stated in this indictment, shipped "by you", I mean Carolene Products Company, contained uniformly the ingredients named on the exhibit with respect to content.

A. Yes, they did.

Q. Melvin, there have been introduced in evidence in this case by the Government, Government Exhibits Nos. 26 to 32, inclusive, and these exhibits, it has been stipulated, were taken by the Government from the various samples secured from the consignees of the eight shipments named and described in the indictment. It is also agreed, I believe, between the Government and ourselves, that all of these exhibits, with the exception of No. 26, do not bear on the label any stamped statement "filled milk", but Exhibit 26, which happens to be applicable to

Count 8, does bear, printed in red on the label, the words "Filled Milk", and I hand you that exhibit. Do you have any explanation for that particular sample or the case in which it was found having contained the printed words in red "Filled Milk" whereas the samples do not have printed on the label such a name?

A. Yes.

Q. Will you state what, if any, explanation there is?

A. The State of Michigan has a regulatory law and, among others things, it provides that the words "Filled Milk" must appear upon the label of any product containing fat or oil other than milk fat. I am not familiar with the exact wording of the statute.

Mr. Matthews: We shall provide that for the Court.

The Witness: We have prepared this label for use on shipments going into Michigan only. The Inspector, I believe, testified that only one case of this entire shipment was labeled with this particular label, and evidently someone in the warehouse got a wrong case and included it in that shipment to West Virginia.

Q. If I understand you correctly then, Carolene Products Company use that type of label only for shipments into the State of Michigan, under its regulatory law?

A. That is correct.

Q. To your knowledge, has Carolene Products Company ever knowingly shipped into West Virginia any can of either of these named products bearing the branded words "Filled Milk"?

Mr. Reno: That is objected to, Your Honor, as being immaterial and a conclusion of the witness. I don't believe that it has even been shown that the witness was employed by the Carolene Products Company or was an officer of it. I think it was shown that he is treasurer

or sales representative or advertising representative of Litchfield Creamery Company. Am I wrong about that?

Mr. Matthews: Yes.

. . . . . .

(Transcript, p. 484)

Q. In addition to your employment by Litchfield Creamery Company, you are also employed by Carolene Products Company, and were you in 1941? A. Yes.

Q. Will you state to the Court the nature of your employment, your duties in connection with Carolene Products Company, and were you in 1941?

A. Yes.

Q. Will you state to the Court the nature of your employment, your duties in connection with Carolene Products Company in 1941?

A. I have charge of the advertising for the Carolene Products Company, and also assist in the formulation of sales policies for that company.

. . . . . .

(Transcript, p. 485)

Thereupon, the question was read, as follows:

"To your knowledge, has Carolene Products Company ever knowingly shipped into West Virginia any can of either of these named products bearing the branded words "Filled Milk"?

. . . . . .

A. They have not.

. . . . . .

Q. I will ask you whether or not, to your knowledge, your answer just given is based and predicated upon

your usual course of business with reference to shipments of the products named in the indictment.

A. Yes.

Melvin Hauser—Cross:

(Transcript, p. 486).

By Mr. Hamstead:

Q. For whom did the Litchfield Creamery Company manufacture the described Carolene product, namely, Carolene, Milnut and Milnot, during the year 1941?

A. For the Carolene Products Company.

Q. Did the Carolene Products Company take the entire output of the product manufactured by the Litchfield Creamery Company under the brand of Milnut, Milnot or Carolene?

Mr. Matthews: In 1941?

Mr. Hamstead: In 1941.

A. Yes, sir.

Q. Then what did the Carolene Products Company do with that product purchased from the Litchfield Creamery Company?

The Witness: In 1941?

Mr. Hamstead: Yes.

A. They re-sold it to wholesale grocers.

Q. Where?

(Transcript, pp. 486-487)

A. About fifty per cent of it, that is an approximate

figure, was sold within the two States of Illinois and Indiana, and the remainder was shipped to other States.

Q. Mr. Hauser, you stated that the Government Exhibit No. 26, described as Count 8, bearing——

The Court: Described in Count 8.

Q. Described in Count 8, or as applies to Count 8, bearing and printing in red on the label thereof, "Filled Milk", was packaged and branded for sale and distribution in the State of Michigan only, is that correct?

A. That's correct, sir.

Q. Did it contain the same formula or product as the contents of the other Government exhibits, as applies to Count 1, 2, 3, 4, and on to and including Count 7?

A. Yes, it is the same, except that there is a difference in several of these as to the vegetable or fat that was used; otherwise, the formula was the same and the ingredients the same.

. . . . . .

(Transcript, p. 487)

Q. During the year 1941, did the Carolene Products Company manufacture and sell any other product except Carolene, Milnot and Milnut?

. . . . . .

(Transcript, pp. 488-490)

The Court: There is nothing in this evidence so far to show that Carolene Products Company manufactured anything. As I understand it, the Litchfield Creamery Company was the manufacturing branch and the Carolene Products Company was the sales branch, and the officers were interlocking, is that right? For instance, Charles Hauser was President of Carolene Products

Company and Mr. Hartke was Vice-President, and Mr. Hartke was President of Litchfield Creamery Company and Mr. Cline was Vice-President of that Company. Am I right about that?

The Witness: That's correct.

The Court: And the Carolene Products Company was the sales branch of this whole operation?

The Witness: It is a sales company.

The Court: It is a sales company for these products?

The Witness: That's correct.

The Court: Made by Litchfield Creamery Company?

The Witness: That's correct.

Q. And does the Carolene Products Company sell any other Product heretofore described, namely, Carolene, Milnut and Milnot?

Mr. Matthews: In 1941?

Mr. Hamstead: In 1941.

A. No, sir.

Q. That was the sole business of Carolene Products Company?

A. Yes, sir.

By the Court:

Q. You have stated that you have charge of the advertising for the Carolene Products Company in newspapers and so forth.

A. Yes, sir.

Q. Where is your office located?

A. At Litchfield, Illinois.

Q. You have stated that Charles Hauser, your father, was President of Carolene Products Company. Where is his office located?

A. At Litchfield, Illinois.

Q. Where is Mr. Hartke's the Vice-President, office located?

A. Well, he doesn't have really an office. Mr. Hartke is in quite a few industries and businesses and lives on a farm about five miles from Litchfield.

Q. Well, Mr. Hartke is President of Litchfield Creamery Company?

A. That is correct.

Q. At what office does he transact his business as President of that Company?

A. Well, it would be in the offices of the Litchfield Creamery Company on any business of that nature, but he doesn't maintain a desk in the offices of the Litchfield Creamery Company.

Q. Does you father maintain a separate office at either plant?

A. At Litchfield, yes, sir.

Q. At Litchfield Creamery Company or Carolene Products Company?

A. Well, the offices are in the same building, and he has his own office there.

Q. And from that transacts his business, both for the Litchfield Creamery Company and the Carolene Products Company?

A. That is correct.

. . . . . .

(Transcript, pp. 493-496)

The Court: I am not interested in what the court of Michigan held as to the constitutionality or unconstitutionality on these questions. Both sides understand I am going to follow the holding of the Supreme Court of the United States on this.

Now, what I call upon counsel for is the statute in effect in Michigan in 1941. That is all I have asked for you to give—no observations and no lectures on it.

Mr. Kaufman: They are the compiled laws of Michigan of 1929.

(Reading.) "Section 5360-1. 'Definition.' Section 1. That for the purposes of this act the term 'filled milk' is defined to mean any milk, cream, skimmed milk, buttermilk, condensed or exaporated milk, powdered milk, condensed skimmed milk, or any of the fluid derivatives of any of them, to which has been added any fat or oil other than milk fat, either under the name of said products or articles or the derivatives thereof or under any fictitious or trade name whatsoever: Provided, That such definition shall not be held or construed to mean or include any milk or cream from which no part of the milk or butterfat has been extracted, whether or not condensed, evaporated, concentrated, powdered, dried or desiccated, to or with which has been added any substance rich in vitamins, nor any distinctive proprietary food compound not readily mistaken for milk or cream or for condensed, evaporated, concentrated, powdered, dried or desiccated milk or cream, provided such compound (one) is prepared and designed for the feeding of infants or young children, sick or infirm persons, and customarily used on the order of a physician; and (two) is packed in individual containers bearing a label in bold type that the contents are to be used for said purposes: And provided further, That nothing in such definition shall be held or construed to prevent the use, blending or compounding of chocolate as a flavor with milk, cream or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried or desiccated, whether in bulk or in containers, hermetically sealed or unsealed, to or with which has been added, blended or compounded no other fats or oils other than milk fat.

"Section 5360-2. Labeling containers. Section 2. It shall be unlawful for any person, firm or corporation, by himself, his servant or agent or as servant or agent of another to transport, deliver, offer or expose for sale or have in possession with the intent to sell, transport, deliver, offer or expose for sale any filled milk which does

not bear a main or principal label on the container in which it is transported, delivered, offered or exposed for sale or sold, a statement printed plainly in the English language in bold-faced type not less than one-fourth inch in height, the words 'filled milk' and in addition enumerating the ingredients and the percentages thereof from which such filled milk is manufactured."

There are other sections of the statute regulating the manner of sale, but it has no relevancy to the question of the words "filled milk".

The Court: I think you have placed in the record now the part of the Michigan statute that this court would want to consult and know when I consider this case. I thank you very kindly.

Dr. Robert S. Harris—for Defendants—Direct:

(Transcript, pp. 496-499)

By Mr. Matthews:

Q. Will you state your name, address and profession?

A. Robert S. Harris, 48 Fairmont Street, Belmont, Massachusetts. I am associate professor of nutritional biochemistry of the Massachusetts Institute of Technology.

Q. Dr. Harris, in a proceeding of this kind, of course, it becomes necessary that you state for the Court and on the record in detail your experience, education, and other matters bearing upon the question of your qualifications with respect to certain matters about which I shall thereafter inquire.

Will you proceed and state those matters on the record as concisely as you can?

A. I hold the degree of Bachelor of Science and Doctor of Philosophy, both obtained at the Massachusetts Institute of Technology, and since 1928 have been engaged in research and teaching in the field of foods and nutrition.

Dr. Robert S. Harris—Direct

I originally held the title of research assistant, research associate, assistant professor, and associate professor in nutrition and biochemistry and am in charge of the instruction of the following courses at the Institute: Food analysis, nutrition, advanced nutrition, and applied nutrition. In addition, I am in charge of the nutritional biochemistry laboratories, which employs upward of ten full-time research workers in the field of nutrition and foods.

I am a member of the American Institute of Nutrition, American Public Health Association, Academy of Physical Medicine, of which I am also a director, the New York Academy of Sciences, American Association for the Advancement of Science, of the Institute of Food Technologists, and several other similar societies.

I also belong to Sigma Xi, the honorary scientific society, and Delta Omega, the honorary public health society.

At the present time I am a member of the committee on the nutrition of workers in industry of the National Research Council, and also a member of the committee on the composition of food. The correct name is Committee on Food Composition of the National Research Council.

I am serving as collaborator with the United States Department of Agriculture, and at the moment we are engaged with the Pan-American Sanitary Bureau in a field of study in nutrition in Mexico.

My name appears in more than forty scientific papers, these papers being concerned with various aspects of food and nutrition with vitamins A and D, thiamine, of the protein of fat, fat metabolism, and we have conducted several experiments with clinicians on numerous subjects.

The Court: Spell that word?

A. C-l-i-n-i-c-i-a-n-s. —in which we have been concerned with the requirements of thiamine of women in pregnancy, the effect of vitamin feeding on the vitamin content of human milk, on the effect of feeding of food

preparations to groups in the population, these preparations containing among other constituents skimmed milk powder; on the measurement of the nutritional status of human beings, these studies being concerned with children, with industrial workers, and with other adults.

These papers have appeared in the Journal of Nutrition, the Journal of Digestive Diseases, American Journal of Public Health, New England Journal of Medicine, the American Dietetic Association Journal, Food Research, and numerous other publications.

I am also an editor of a book called Vitamins and Hormones, the first volume of which will appear within a week or two.

So, my entire scientific life has been involved in the study of foods and food utilization by laboratory animals and by human beings.

Q. Doctor, I will ask you to state to the Court what is the National Research Council and whether or not it has any relation to the United States Government?

A. The National Research Council is a part of the American Academy of Sciences and is quasi-Governmental.

It was set up some years ago to advise the governmental agencies on problems mainly during war period. The membership consists of mainly persons connected with the various educational institutions of the country and on its boards and committees will be found representatives of the Governmental agencies who are interested in the subjects in which they are concerned. They are an advisory group and set up to advise the Government and its various departments in various matters.

A part of this National Research Council is the Food and Nutrition Board, which considers all problems directed to the National Research Council pertaining to foods and nutrition.

Q. As a teacher of nutrition and biochemistry, I will ask you, doctor, whether you have kept abreast of the scientific developments in the field of nutrition and their practical application in food manufacture?

* * * * * * * * *

(Transcript, pp. 500-501)

A. Yes. I have come to my desk every month in excess of forty different journals. I have subscribed to all of the important abstract journals which cover the World's literature, and have tried to impart this information to my students from year to year.

Q. How are vitamins classified according to their solubility?

A. There is a distinct difference between various vitamins in terms of their solubility in water or in fat.

Very early in the research on this subject vitamins were classified in terms of solubility in fat or in water.

In 1912 Funk suggested the term "vitamine" to apply to these substances newly discovered which had an effect on the health of experimental animals.

In 1913 Dr. McCollum distinguished between two groups of vitamins by calling one the fat-soluble A and a second, water-soluble B.

In 1920 Drummond produced evidence that there were at least two substances in the water-soluble group and suggested that the one which he had discovered should be called water-soluble C, and in 1922 Dr. McCollum produced evidence to indicate that the fat-soluble A could be broken up into at least two groups, one which he called the antiophthalmic and the second the antirachitic D.

The Court: Antirickets?

A. Yes. Thus, it is evident in evaluating these that vitamins were first distinguished between each other in terms of their solubility in fat or in water.

Mr. Matthews: Q. Apart from any vitamin content which they may or may not possess, will you state how edible oils differ, if they do differ, in their nutritional value?

A. Well, for human beings there is no difference between edible oils in their nutritional value except for their vitamin content.

Q. With respect to digestibility?

A. There is a slight difference between the various oils in their digestibility, but all of them are essentially digestible, being in excess of 90 per cent digestible in human beings.

. . . . . .

Q. I will ask you to state, when you speak of oils do you include such things as butter-fats, coconut oils, and cotton-seed oils?

A. Yes. All animal and vegetable oils that have been so far studied.

Q. And applying the question to another subject, that of energy value, in what way, if any, do edible oils differ in their energy value?

A. They are of equivalent energy value on a weight basis.

Q. Apart from any vitamin content which they may or may not possess, is there a difference nutritionally between coconut oil and cotton-seed oil and animal fats and oils, like butter-fat?

A. Well, for human beings there is no evidence to indicate that there is any difference whatever.

Q. Are coconut and cotton-seed oils regarded as good sources of the fat-schedule vitamins?

A. No; they are not. In natural form they contain small amounts to these vitamins, but they must be considered to be rather poor sources of these vitamins.

Q. Is butter-fat a good source of the fat-soluble vitamins?

A. Butter-fat is at times a very good source of Vitamin A, but is a rather poor source of Vitamin D.

Q. Will you explain why you use the expression "at times?"

A. There is considerable variation in the vitamin content of butter-fat, due to variations in the season which have an effect on the food supply of the cow. There is also a great variation between the various strains of cow, and the composition of the milk from any one cow will vary during her lactation period. The variation may be quite considerable. It is highest in the late spring and is lowest in the late winter.

Q. Will you give us a common example of the difference between the animals, for instance, distinguishing between certain breeds, as to this particular content, naming some of those which give milk ordinarily with these other variables, as being higher or richer in the fat-soluble vitamins, and another particular breed, naming a couple of them, if you can?

A. I am sorry. I don't recall at the moment any particular breeds, but according to breed the vitamin content may be two or three times higher in one case than another.

Q. In 1923 and for a period prior thereto I will ask you whether or not there were practical methods available to your knowledge for correcting any recognized deficiency of Vitamins A and D in vegetable fats and oils?

A. I said in answer to a previous question that in 1922 our knowledge of vitamins had been advanced only to the stage of distinguishing roughly between certain oils or certain tissues which contained unknown and unidentified substances, which were called by these crude names, like fat-soluble A or fat-soluble D, or water-soluble C. At that time no vitamin had been identified chemically.

It was not very well known that some of these substances did exist. There was much debate at that time on all of this question. All of the substances or vitamins that were available for man had to be obtained from food substances and at that time there had not been developed any techniques for concentrating the vitamins from one food in order to place them into a second food.

Today it is possible for us to concentrate these vitamins in a fish-oil and add to or remove almost all of the oil and separate the vitamin from the oil, and then to add the vitamin concentrate into another product, which would then have a high potency in vitamins but would not even have the unfavorable flavor characteristics of fish oil.

It was not possible until recent years, within the last decade, to add Vitamin A to a bland food substance without adversely affecting its flavor, but today such procedures are possible, and it is commonly done to many foods.

Furthermore, since 1923 there has developed a rather huge chemical industry for the synthesis, the production from chemical compounds not obtained from natural fats, for the synthesis of many of these vitamins for food enrichment.

Thus, in 1922—1923 very little was known about vitamins. We were just beginning to find out something about them, and it was impossible for the food industry yet to take advantage of this new knowledge.

Q. Dr. Harris, was it believed among the scientists, the people who knew, in 1923 that milk was a good source of both fat-soluble Vitamins?

A. A and D?

Q. Yes?

A. Well, it was known to some people. I don't know what this question is directed at. There was knowledge in 1923 that Vitamin A and Vitamin D, so-called, did exist, and it was known to some people in the field, at least, that milk contained both of these vitamins.

Q. Dr. Harris, I will ask you to state whether or not subsequent research, in other words subsequent to 1923, has led to a support or non-support of the belief which you have expressed as having been held by some scientists that milk is a good source of Vitamin D?

A. Later research showed that milk is a rather poor source of Vitamin D. This conclusion is so well accepted today that there is a definite movement in this country to irradiate milk to produce in it large amounts of Vitamin D.

Q. When you speak of milk are you speaking of whole milk?

A. Whole milk. To feed cows irradiated yeast so they must pass Vitamin D into their milk or to add Vitamin D along with Vitamin A in the form of concentrates of fish-oil added to the whole milk by the dairy. Thus, it is generally admitted that milk is a poor source of Vitamin D but a very excellent and fine carrier for Vitamin D when added to it in these ways.

Q. I believe you have already stated, but is Vitamin D the antirachitic vitamin?

A. It is.

Q. Doctor, you have stated before that vegetable oils had no Vitamins A and D. Is that true?

A. I believe I said essentially none. There is a small amount.

Q. I believe you have stated before that vegetable oil had no essential content of Vitamin A and D. I will ask you whether or not the deficiency in Vitamin A and D was the basis for the opinion prevailing in 1923 and prior thereto among at least some of the scientists as to the nutritional superiority of butter-fat over vegetable oils?

A. I would like to have that question read?

Q. I think it is rather confusing myself.

(The question was thereupon read by the Reporter.)

A. There is no doubt that in 1923 the superiority of butter-fat was judged to be, because of its larger amount of Vitamins A and D in comparison with other oils, and it is evident at the hearings that were held at that time in connection with the Filled Milk act, which I have read, that major emphasis was placed upon this fact.

Q. The hearings to which you refer are hearings where?

A. In Washington, in connection with the Filled Milk act.

Q. You refer to Congressional hearings, committee hearings, and so forth?

A. Testimony of scientific witnesses at the hearings.

Q. Doctor Harris, has there to your knowledge, been a popular prejudice against the use of skimmed milk as food?

A. Yes. There has been a prejudice for many years against skimmed milk as a food. One might say that as a food skimmed milk has a low social status. It was an improper thing for a person to be so poverty-stricken that he had to resort to skimmed milk as a food when he could purchase whole milk.

At the beginning, even the scientific group held the opinion that skimmed milk was not nearly as good a food as butter-fat, and even the dairy industry is set up on the basis of butter rather than milk. The money part of milk production is butter, and because of that it has infiltrated into the population that the best part of milk is the cream, and the inference is from that that skimmed milk is not a good food.

All one has to do is look today at the consumption of skimmed milk by the American population, which is essentially nil, to see the proof that that prejudice still exists in the population.

Q. How does skimmed milk compare with whole milk in nutritive value?

A. Milk is a mixture of skimmed milk and butter-fat.

When one removes cream from milk, one takes out most of the butter-fat and a small amount of skimmed milk.

Thus, cream is a milk with a very high fat content. Skimmed milk is a cream, one might say, with an extremely low fat content.

Q. You mean cream or milk?

A. Skimmed milk is a cream with extremely low fat content. The only difference between the two is the amount of cream per unit. The difference between skimmed milk and whole milk, therefore, is in the amount of cream or butter fat, and that means that the difference is in terms of fat and of vitamins that have dissolved in the fat. The nutritive value of skimmed milk, therefore, is equivalent to that of whole milk, with the exception of the vitamins which it contains and of the lower calory content which it has.

Q. If I understand your last answer correctly, doctor, then for human purposes and uses skimmed milk contains all of the nutritive values of whole milk except that of Vitamins A and D and fat?

A. That is essentially correct, excepting this very fine point: There is some butter fat in skimmed milk, and therefore some Vitamin A and D tends to go in there.

Q. Is skimmed milk an important source of protein?

A. I should have added to the other answer this fact, that when one removes cream from whole milk, one removes, of course, with it a small amount of skimmed milk, which contains a water soluble fraction of milk.

Since all of the water-soluble content of whole milk is to be found in skimmed milk, therefore one will actually find larger amounts of the water-soluble constituents of milk in skimmed milk, because in the removal of fat you have increased the proportion of the quantity of each of these constituents. Therefore, one finds in skimmed milk a higher percentage of protein than one finds in whole milk, and essentially all the protein is to be found in that fraction.

Dr. Robert S. Harris—Direct.

Q. Will you state how this protein rates, that is, in the skimmed milk, as I understand it, with proteins found in other foods with respect to their biological value?

A. The protein of skimmed milk, that is the protein of milk, is one of the finest proteins that we have in the dietary.

Perhaps it is necessary here to explain why this is so. A protein is a very large compound that is made up of a large number of smaller units called amino acids. There are some twenty-four amino acids. Each protein is made up of a certain number of these amino acids and in certain positions in the molecule. Of these twenty-four amino acids it has been proven that for animals ten of these must be present in the dietary, else the animals will not grow or even may die. The other fourteen may be left out of a dietary and the animal will be perfectly normal. These ten amino acids have been called essential amino acids.

Now there is a great difference in various kinds of proteins, in proteins from different sources, as to the amounts of these essential amino acids which they may contain. In general, plans proteins are deficient, either completely devoid of or have small quantities of one or more of these essential amino acids. Thus when we feed an animal on vegetable food he may tend to be deficient in some of these amino acids which will interfere with his growth and in some cases will cause him to die, due to the fact that one or more of these amino acids are not present in adequate amounts in the dietary. This all refers to animal research.

Recently, experiments have been performed on human beings, and it has been found that when the same ten amico acids are fed to human beings their growth and development apparently is still all right. In other words, there is little difference apparently between rats and man with respect to the other fourteen amino acids which we say

are not essential in the dietary. It has also been shown on human beings that at least two of these ten essential amino acids for the rat are also essential for human beings, but it has not yet been proven whether the other eight amino acids that are essential for the rat are also required for human beings.

Now, because of the essential amino acid content of various food proteins sometimes you have to feed two or three times as much of a vegetable protein in order to produce the same growth effect as you get with milk protein, which is an excellent one. The general procedure in determining the value of a protein in a food is to feed one group of experimental rats with a diet in which only that protein is present and to feed to a comparable group a standard protein of high biological values, such as lactalbumin, which is one of the proteins in milk, and the experiment is conducted until a level of feeding of the standard protein is given which will produce the same growth effect on the experimental animals in comparison with the other group. This is called the biological value. It is a very technical procedure.

It may be said then that vegetable proteins are of low biological value, largely because that consist merely of unessential amino acids and the small amounts of essential amino acids which they contain may be altogether too little. Animal proteins, on the other hand, are of high biological value because they generally contain all of the ten amino acids that seem to be required and in the proper amounts. Theoretically perhaps the best protein we could add would be human flesh. Since this isn't proper in any civilized society, the next best thing is the flesh and the milk and eggs of numerous high ranking animals, and these rank among our best proteins, so that milk—it is a long answer I have given—but milk is among the best sources of excellent protein for the human dietary.

Dr. Robert S. Harris—Direct.

The Court: You refer to skimmed milk or whole milk?

A. I made the statement first that skimmed milk contains most of the protein of whole milk. The statement applies both to whole milk and to skimmed milk and to skimmed milk powders.

Mr. Matthews: Q. Doctor, is the lactalbumin also present in skimmed milk?

A. So far as we know there are four proteins in milk and lactalbumin is one of those four. Casein, perhaps, is better known to most people. It is present in skimmed milk and in whole milk in the same ratio.

Q. How does skimmed milk rank as a source of calcium and phosphorus?

A. Milk is accepted by almost everyone in the field as the best food source of calcium that we have. The skimmed milk in comparison with whole milk is even a richer source of calcium.

Q. How does skimmed milk rank as a source of water-soluble vitamins? That may have been answered, but I don't know.

A. Well, skimmed milk contains most of the water-soluble vitamins of whole milk, that is most in terms of the quantity, all of the water-soluble vitamins of whole milk.

Q. Are there any other important nutritive elements in skimmed milk other than those that you have mentioned?

A. Skimmed milk, in addition to protein and water-soluble vitamins and also trace amounts of fat-soluble vitamins, also contains lactose or milk sugar. Lactose is found in scarcely any other food substance that we have on this earth. Lactose serves, perhaps, a special purpose in the nourishment of the young. Almost all of lactose in whole milk is found in the skimmed milk and to some extent the lactose is used as energy. Milk also

contains small amounts of iron, the amounts being so small that if you will give an experimental rat a diet consisting of milk, whole milk or skimmed milk, the rat will eventually develop a high deficiency anemia.

Milk also contains trace amounts——

Q. May I interrupt you a moment. What is the popular name of lactose?

A. Milk sugar.

Q. Pardon the interruption please.

A. I should say skimmed milk contains trace amounts of several minerals of rather little significance in nutrition.

Q. I believe phosphorus was included in my question with reference to whether or not skimmed milk was a good source of calcium and phosphorus. Have you mentioned phosphorus?

A. I have not. Essentially all of the phosphorus of the milk is found in the skimmed milk, this phosphorus being of considerable importance in nutrition.

Q. In what way, sir?

A. Well, phosphorus is used in the formation of bone. It is combined with other substances in the metabolism, that is, in carrying the functions of the human body. It is present in certain things like the nervous tissues in fairly large amounts. It is also concerned with the metabolism of all fats.

Q. To summarize, and I want you to correct me if I am wrong, is it your statement and conclusion that skimmed milk contains essentially all the protein, milk sugar, minerals, water-soluble vitamins, of whole milk?

A. Yes.

Q. I will ask you to state whether or not the newer knowledge—if I may use that expression—with reference to 1923 and from that time on, of nutrition, has changed the attitude of nutritionists and the public health officials towards skimmed milk as a food?

Dr. Robert S. Harris—Direct.

A. As has been pointed out, in 1923 it was known that three vitamins perhaps existed, Vitamin A, Vitamin C, and Vitamin D. They had been isolated, since that time these vitamins have been isolated and have also been synthesized.

Since 1923 a large number of other vitamins have been discovered. The quantity may be estimated as between thirteen and thirty different vitamins have been isolated, synthesized, or at least evidence presented that those do exist. In 1923 we had no idea of the compound what we now know to be Vitamin B_1 deficiency, in fact, I recall in 1923 that it was common thought that beriberi was due to toxic substances in the food. A few years later it was found that beriberi was a deficiency disease and it was curable by feeding thiamine. That is an example of the sort of thing that was formerly believed about many of these deficiency diseases. With the passage of time, with the identification of more factors in importance in nutrition, with the development of techniques for measuring these factors, and with the development of more information as to the importance of those factors in human nutrition, it has been pretty well proven now that skimmed milk is one of the best foods that we have, in many respects superior to any other food that we have available, so important that the moment a very great effort is being made to find ways to bring skimmed milk off the farm and into human consumption.

Our opinion about skimmed milk has changed quite radically. People in the educational field, in the research field, and those in government having to do with foods and with nutrition, are now extremely anxious to increase the consumption of skimmed milk, in fact, of all diary products by human beings.

Q. Can you state to what extent skimmed milk is being used as food in this country at this time?

Q. It is quite difficult to get exact information on this

question, primarily because we do not know exactly how much milk is produced in this country, but on the basis of the past data that I have been able to obtain for the last year, 1942, there was produced in this country approximately five hundred sixty million pounds of dry skimmed milk. That is equivalent to three billion pounds of fluid milk. In addition to that there was—the above quantities were used for human feeding. In addition to that, there was produced for animal feeding one hundred twenty-nine million pounds of skimmed milk and butter, milk powder. This is equivalent to approximately six hundred ninety million pounds.

Q. Billion or million?

A. Million pounds of fluid milk. Therefore a total 3.8 billion pounds of milk was dried in this country last year. There is a small amount of fluid skimmed milk that is used by bakers and other food industries, but the amount of these is extremely small, and if we add, say two-tenths of a billion pounds to take care of that we come to a figure of four billion pounds that is estimated to have been used by—that is, four billion pounds of all the skimmed milk available in this country was used for feeding humans and feeding animals in 1942. From the data on butter products it seems that there were about nearly thirty billion pounds of skimmed milk that cannot be accounted for. Thus it appears that a very large quantity of skimmed milk was not used for feeding farm animals in forms of dried milk powder. Of course, a fraction of this unaccounted skimmed milk was fed on the farm, and I know that a committee of our Research Council is making very definite efforts now to find ways to get this skimmed milk which is now being essentially wasted into production so that it may be used by human beings.

The Food Administration is asking for one billion pounds of dry milk during this year, of this three hun-

dred twenty-five million pounds is to be shipped on Lend-Lease and seventy-five million pounds is to be used by the Armed Forces.

Q. You are speaking of skimmed milk now?

A. This is dry milk. I wish to state that most dry milk is skimmed milk because it has been found extremely difficult to produce dry whole milk that will not go rancid and it is very important to note from the very beginning Lend-Lease shipments of dried skimmed milk were given number one priority in the feeding of our Allied Nations, again an admission of the great importance of skimmed milk in human nutrition.

Q. Doctor, are you personally familiar with the products Milnot and Milnut?

A. Yes, I am.

Q. What do they contain?

A. The label statement is to the effect that they contain skimmed milk, added Vitamin A and D, and either coconut or cotton-seed oil.

Q. It has been testified that these products contain not less than 2,000 U. S. P. units of Vitamin A and 400 U. S. P. units of Vitamin D in each 14½ ounce can. I will ask you to state whether or not these are substantial amounts of these vitamins for that liquid content or canned content?

A. The best way to answer that question is, first, to state that the National Research Council has set up what are called allowances of proper intake of nutritional essentials. With respect to Vitamin A the allowance is 5,000 international units per day for an ordinary moderately active man and as low as 1,500 for a child under one year of age. In comparison with this standard it is evident that this product contains very significant amounts of Vitamin A.

Also the Food and Nutrition Board have standard allowances for Vitamin D and for children under one year

the estimate is four hundred to eight hundred international U. S. P. units of Vitamin D per day. The estimates of older age groups have not yet been established. Thus in terms of Vitamin D content this product contains a significant amount of Vitamin D.

Furthermore, because of the fact that the amounts are present in guaranteed quantities it constitutes a reliable source of both of these vitamins. In the case of fluid milk that cannot be set up because as I have indicated earlier in the testimony fluid milk may have extremely small amounts of Vitamin A and of Vitamin D. We have in our laboratory assayed whole milk and have found it to contain less than five units of Vitamin D per quart.

There is some agitation among some people in the nutritional field to have some regulation which would guarantee a minimum intake of Vitamin A and D from milk and milk products. From the nutritional viewpoint this type of suggestion is a very sane one; from an administrative viewpoint, perhaps, it is an impossibility.

Q. Doctor, are you able to state how much Vitamin D in U. S. P. units is contained in Vitamin D fortified milk as made today and sold today? I am now speaking of milk other than this product.

A. Vitamin D fortified whole fluid milk contains usually 400 U. S. P. units per quart. I might add to that answer that this quantity is roughly equivalent to the products under consideration, and it is the quantity preferred by the American Medical Association Committee on Foods as a proper level of enrichment of fluid milk.

The Court: That is, four hundred to the quart?

A. Four hundred to the quart. In the case of this type of product where there has been a concentration it would be four hundred of this product diluted to its proper amount.

. . . . . .

(Transcript, pp. 522-530)

By Mr. Matthews:

Q. Dr. Harris, there is one question I would like to ask you which is more of a qualification question than pertaining to the line we have been following, but I want to ask you this. Have you served and are you now serving as a consultant for the British Food Mission and have you or have you not been functioning for the National Research Council for the Army and Navy on their emergency ration problems?

A. Ever since the British Food Mission arrived in this country several years ago, I have been acting as a consultant for them in their food problems. Our group has been conducting investigations on the development of emergency rations, at first for the United States Army Quartermaster Corps, later for the Air Force of the Army, and still later abandoned ship rations for the Navy.

Q. Considering each of the nutritive elements separately in Milnut and Milnot, how do these foods compare with other foods in the American dietary?

A. Well, in comparison with other foods, these two products rank very high, I would say within the first ten in the American dietary.

Q. Dr. Harris, I have before me two charts entitled "Food Value Charts", and will ask you whether or not you have examined these charts and have checked their accuracy, or whether or not they have been approved by the American Medical Association—and I am omitting from that question anything that these charts may contain with reference to Milnot or Milnut.

A. Those two charts are the two charts that have been in my possession, which were published by the——

Mr. Matthews: I will hand you the charts, both of them. They are a little awkward to handle.

A. They were published by the National Livestock and Meat Board of Chicago, Illinois. These charts bear the approval of the committee on foods of the American Medical Association, which indicates that this committee has checked all of the values presented in the charts and accepts the data as presented there.

Mr. Matthews: First, I want to have these charts marked for identification Defendants' Exhibits Nos. 12 and 13, respectively.

(Thereupon, the two charts were marked Defendants' Exhibit No. 12 for Identification, and Defendants' Exhibit No. 13 for Identification.)

Q. I want to first ask you, before I offer them in evidence, whether or not the portions of the charts which include the designation Milnot in Exhibit 13 and Milnut in Exhibit 12, have been inserted in a certain position on each of the pages of this chart, No. 12, in the position which you have determined by your own experience and experiments, or by your own knowledge, in the appropriate place for them among the various foods shown and displayed on the respective charts.

A. The data for Milnut were included in this chart by insertion at its proper position in relation to the other data presented on each page. The data upon which insertion was made were data that were either testified to by Dr. Cannon day before yesterday or were determined in our laboratories during the past months. It should be stated that these charts were prepared by this Board for educational purposes, especially in colleges, and that in presenting data in each case the best foods with respect to each vitamin, mineral, protein or calorie, category, the best foods were presented there in the order of their quality.

Q. One other thing I wish to call your attention to, on

the next to the last page of this chart, Exhibit No. 12, appears a compilation under the heading of "Vitamins, Common Foods as Sources of Vitamins," then with the names of various foods and the vitamin content of the respective foods set forth, under "Vitamins," lettered "A," "B," "C," "D," and "G." I will ask you, who prepared that particular portion of this chart.

A. I prepared that chart several years ago. You will note on the preceding page that this chart presents the vitamin content of each of these foods, these same foods, in terms of "plus" and "minus" values, which is the old method that was employed for expressing vitamin potency. Several years ago I took those same foods, looked up in references the vitamin content in terms of international units and milligrams, and prepared a chart which, in a sense, is a more up-to-date presentation of the material presented in the original chart form. At the bottom of that table that I have prepared there are given the sources from which these data were taken.

Q. And when you speak of having done this some years ago, will you state to the Court when, to the best of your recollection, you prepared this next to the last page that I have been speaking of on Exhibit No. 12?

A. I believe that was in 1940.

Q. Since that time, I will ask you whether there has been any material change, as a result of research and study, in the number of vitamins which you have indicated opposite the respective items of food.

A. Since that time there has been a further research on the analysis of these various foods, which would change slightly some of those numbers, but, in general, the change is rather insignificant.

Mr. Matthews: We would like to offer in evidence Defendants' Exhibit No. 12, and we understand that this is covered under the objection and ruling of the Court, with exception saved.

(Defendants' Exhibit No. 12 thereupon, the said chart was marked Defendants' Exhibit No. 12.)

Mr. Matthews: Your Honor, we have sent for the photostats which we had made of these charts, which have not yet been delivered.

The Court: I would like to have the photostats to follow.

Thereupon, the photostats were delivered, and handed to the Court.

Q. Doctor, would you be kind enough to come down here, and stand so you won't interfere with the view of the Court or counsel, if possible—I will assist you in any way I can—and explain these respective charts, beginning with the first one?

A. The first page of this chart is concerned with the relative protein content of these foods. The amounts given for the meats are four ounces, which is the accepted daily portion in a serving, and, in general, in preparing this chart the usual daily portion is presented here. The stars beside the quantities used in each case represent the quality of the protein, the type of thing I was mentioning this morning, three stars being a fine quality protein and one star being poor quality protein. You will notice in the case of beans, the quality of the protein is poor, and if you wanted to compare the value of this protein with meat and present it in terms of true food value, the length of this line on the chart would be somewhat diminished.

As I said a while ago, in preparing this data the best protein foods have been presented, the best typical protein foods, and it will be noted liver ranks first in the foods in terms of protein content for a four ounce portion. It will be noted that, in general, all of the meat foods are presented at the top part which, of course, would

be expected, because meats are essentially protein. Then, after the meats and fish and fowl, there appears cheese, that is, cottage cheese, with a protein content somewhat less than half that of beef, which just precedes it. And then next in the list is Milnut, the amount presented there being three and a half ounces, which is equivalent, roughly, to a glass of milk. It is recommended that two glasses of milk be taken per day, and in terms of that intake type of figure would be extended twice as far.

It will be noted, I think there is no need of going through the whole chart, but you will notice there is a presentation of eggs, of milk, of cheese, of bread, and so forth, down lower in the chart, indicating that in terms of a day's portion these products are less valuable as a protein source. And one might remember that Milnut here ranks eleventh as a protein source among these foods. All of these data here were presented in the original chart, with the exception of this insertion for Milnut so that it could be presented in terms of its value as a protein food.

The next page presents the same type of data with respect to calories, and you will notice that they aren't the same foods as on the first chart, because the higher calorie content foods are presented, irrespective of the type, and again the meats tend to be first in ranking, and milk appears here, whole milk, and Milnut appears next, and then some fat sources like lard and butter, and other foods are presented down below. Again Milnut appears to be tenth in this list as a source of calories.

The next page is concerned with calcium. The calcium content of Milnut is so large that it goes off the chart and we had to add a piece to it. You will note that it ranks first of all the foods in calcium content and that whole milk comes next, cheese next, and then some of our vegetables come afterward.

This supports the statement I made this morning that milk and milk products are best sources of food calcium.

Dr. Robert S. Harris—Direct.

The next page is concerned with phosphorus, and again the meats are high in phosphorus content and rank at the top of the table, and immediately after the meat comes Milnut, then milk, then oysters and cheese and various other foods.

Milnut in this tabulation ranks tenth among the foods as a source of phosphorus.

The next chart is concerned with iron and copper. I remarked this morning that milk and milk products are very low in iron content, and this is shown by this chart. Milk is presented last, and, according to our analyses of the iron content of Milnut, Milnut ranks next to the last in iron content; therefore, dairy products and foods prepared from dairy products are very low in iron content, and meats in general rank quite high.

The next page is concerned with vitamins, and, as I stated a while ago, the data are presented in terms of "plus" and "minus", "three plus" meaning that a food is high in the particular vitamin, "one plus" meaning that it is present in rather small amounts, and "minus" indicating that there is none at all. In those cases where there are blank spaces, it indicates that when this chart was prepared there were no data as to these vitamins in these foods.

This is an archaic method of presentation, and I have improved, I believe I have improved the presentation of information by the next table which presents the data on the vitamin content of these same foods in terms of milligrams for the riboflavin or Vitamin G, and in terms of international units for the other foods.

It will be noted that foods vary considerably in vitamin content, and also that these data are presented in one hundred gram portions rather than the amounts that one would eat per day.

It is evident from this that milk products do have significant amounts of some vitamins but are rather low

in some others. I would draw, as a general conclusion, from this set of tables that the product Milnut ranks among our first ten foods with respect to most of these categories, with the exception of iron, that, therefore, and since the foods with which it has been compared with respect to each nutrition substance are the ones that are highest in these particular elements or compounds, that Milnut represents a very fine food from the nutritional standpoint.

(Transcript, pp. 534-538)

Q. Doctor, before going on to the next chart, will you state whether or not skimmed milk, either dried or powdered or whatever it may be, is considered by you as a proper thing to use in other products than simply the skimmed milk product, in other words, the composition of such or something of that kind?

A. When I worked, first of all, for the Department of Agriculture, we were very much interested in finding better uses for our most nutritious foods. It is a very peculiar thing that in this country the best foods we have generally are being fed to livestock. Several examples would be peanut, peanut cake, soya, and skimmed milk powder—three that rank among our best foods are really not being used by human beings to any extent.

The Court: You say "soy". Do you mean soy beans?

The Witness: Soya, yes, soya flour. When I started to work in the Department of Agriculture, in trying to develop a food product to be used in the school lunch program in this country, immediately we put in peanut, soya and skimmed milk, in that formula, and we published a paper of the results of feeding that kind of thing to school children, and have been able to show very convincing improvements in the nutritional status of these children by feeding that material.

Then, taking this food preparation, it is now in the hands of the Lend Lease group in the Government and some shipments are being made to foreign countries—that's where part of the skimmed milk that I mentioned this morning is going, and I know of several other formulae that are being shipped to England and to Russia, all of which in every instance contain skimmed milk powder as an important ingredient.

In the study that we are going to do, that we are now doing in Mexico that is just getting under way, we again intend to prepare a food containing the Mexican type of food with a Mexican flavor, but it also will contain milk powder. The reason for that is that we believe that the production of dairy products in such areas should be encouraged, and if you can demonstrate on school children very definite improvements in health when feeding a mixture containing these things that should be encouraged in a country, then the hope is that that country will do something to extend that type of agriculture, and skimmed milk powder is being used rather than whole milk, of course, because it is much more stable and skimmed milk powder is being used rather than whole milk powder because whole milk powder is definitely more expensive and is also very unstable.

The Court: What do you mean by the expression "very unstable"?

The Witness: It goes rancid.

Mr. Matthews: We now offer in evidence the chart with reference to Milnot. It is Defendant's Exhibit for Identification No. 13.

(The said chart was thereupon marked Defendants' Exhibit No. 13.)

Q. Now, Doctor, I don't feel like asking you any questions about this at all except to have you state to the

Court, briefly, whether or not this is the same as the Exhibit No. 12 in all respects, or if in any respects it differs, with the exception of the substitution of the Milnot product for the Milnut product appearing on Exhibit No. 12.

A. This chart is a subsequent edition to the one before. This chart was prepared within the last few months.

Q. That's Exhibit No. 13, Doctor?

A. Yes, and therefore the data presented in it are more up to date than the ones in the previous chart, but the method of presentation is exactly the same, and in this case we have added the data on Milnot in the same manner as before, and I think it is clear enough from the discussion of the other chart so that I will not need to go into detail only to point out that it will be seen, with respect to protein, that Milnot ranks eleventh among the high protein foods, that with respect to calories it ranks tenth among the high calorie foods, with respect to calcium it ranks first among high calcium foods, in regard to phosphorus it ranks tenth among high phosphorus foods, in the case of iron it still ranks quite low, maybe about fifteenth or twentieth among high iron foods.

The table on vitamins needs some discussion, because the chart as originally published presented the vitamin content of these listed foods in terms of micrograms and international units. They have taken advantage of the progress that had been made between these two editions, and I have presented here the data on Milnot and also on evaporated milk, because evaporated milk, for some reason, was left off this chart. It will be noted that the vitamin values given in this chart are in agreement with those testified to by Dr. Cannon day before yesterday.

Again this chart shows that Milnot this time ranks among our best foods with respect to calorie, protein, calcium and vitamin content, and, in my opinion, is within the first ten, and I think there is very little to challenge

such a statement. Therefore, I don't understand why such a fine food should ever be conceived as being barred from use by the American people.

* * * * * * * * *

(Transcript, p. 538)

Q. In the discussion with reference to Exhibit No. 12, involving Milnut, you stated that the chart was prepared on the basis of one glass of Milnut, and that the average daily consumption should be two glasses, I believe.

A. The average daily consumption by adults of fluid milk, whole milk, is advocated at one pint, or two glasses.

Q. Would the same answer apply to Milnot, as appearing on Exhibit No. 13?

A. That's right.

* * * * * * * * *

Q. Dr. Harris, it has been testified to in this case that Carolene, one of the three products named in this indictment, is the identical product with either Milnut or with Milnot, depending upon whether or not Carolene as one of its ingredients contained coconut oil or cotton-seed oil, respectively. With that assumption, would your answers be the same, and would your chart, if you had prepared it including Carolene rather than Milnut or Milnot, and graphically shown on the chart, would it be identical with Exhibits 12 and 13 except for the name of Carolene?

A. Up until several years ago Milnut was manufactured and at the same time the same product was sold, as I understand it, under the name Carolene.

Mr. Matthews: That's right.

A. Subsequent to that, when cotton-seed oil was used in the manufacture of this product, the name was changed

to Milnot, and still a product was sold under the name Carolene which now resembled Milnot, therefore, these two Carolenes, one and two, would correspond with Milnut and Milnot in identity.

* * * * * * * * * * *

(Transcript, pp. 540-541)

Q. Doctor, I am going to endeavor to ask a rather long but complete and, I hope, comprehensive question. I want to ask you whether or not cotton-seed oil, coconut oil, skimmed milk, Vitamin A and D in high potency fish-liver oil, either alone or in combination or mixed, is or are wholesome nutritious, healthful, nourishing, and non-injurious to the public health when used by a human being.

A. Each of those substances named, when used in the ordinary amounts by human beings, either alone or in combination, would be useful dietary substances, and there is no evidence that I can recall that any of them in any way are harmful or injurious to the public health. Each of them have been used for many years in other combinations, and they are our part of the history of the race, and it is only perhaps a new combination in the case here of these ingredients, and the resulting food preparation is, as I say, a very excellent food substance.

No Cross Examination.

William Howard Thompson—for Defendants—Direct:

(Transcript, pp. 541-542)

By Mr. Matthews:

Q. Will you state your name, please?

A. William Howard Thompson.

Q. I will ask you whether or not you are the same

William Howard Thompson who has heretofore testified in this case as a witness called on behalf of the Government.

A. I am.

Q. I do not care to review the testimony you have already given. I want to ask you a very few specific questions. How long have you acted as general manager of the Warsaw branch of the Litchfield Creamery Company at Warsaw, Indiana?

A. Five years ago March 1.

Q. Of this year?

A. Yes, sir.

Q. During that period of five years, I will ask you how many times the defendant Charles Hauser has been at the Warsaw plant, to your knowledge.

. . . . . .

(Transcript, p. 543)

A. Yes, sir. To the best of my recollection, he has been there three times—the first time in either '38 or '39, the second time in the summer of 1940, and the third time this last summer, 1942.

Q. Now, Mr. Thompson, I will ask you to state, to the best of your knowledge and belief, how many times the defendant William H. Hartke has been at the Warsaw plant of the Litchfield Creamery Company in the past five years.

. . . . . .

(Transcript, pp. 543-544)

A. To the best of my recollection, he has been there three times—the first time in the fall of '38, and the other two visits were during the summer of 1942.

Q. Now, I want to ask you whether or not at any time during those five years you were even given any instruc

tions by either of the defendants, Charles Hauser or William H. Hartke, with reference to the shipment of either Carolene, Milnut or Milnot.

* * * * * * * * * *

A. I was not.

No Cross Examination.

* * * * * * * * * *

Melvin Hauser—for Defendants—Recalled—Re-direct:

(Transcript, pp. 544-546)

By Mr. Matthews:

Q. Melvin Hauser, I hand you five cans, which have been identified as Defendants' Exhibits Nos. 14, 15, 16, 17 and 18, and ask you to state whether or not you recall the cans, and whether or not you purchased them.

A. I did.

Q. Will you tell the Court where you purchased them, and when?

A. Exhibit No. 14 was purchased in Litchfield, Illinois, in 1942. I don't recall the exact time.

Q. Where? Any particular place of business, drug store or grocery store?

A. Grocery store in Litchfield, Illinois.

Q. All right.

A. Exhibit 15 was purchased in Chicago.

Q. About when and where?

A. In 1941.

Q. Where?

A. At a store in Chicago.

Q. Grocery store?

A. Yes, sir. Exhibit No. 16 was purchased in a drug store in St. Louis in 1940, I believe.

The Court: St. Louis, did you say?

The Witness: Yes.

The Court: When was that?

The Witness: In 1940.

The Court: When was No. 15 purchased in a Chicago grocery?

The Witness: That was in 1941. No. 17 was purchased by me, but I don't recall exactly where I purchased it, and it was purchased either in 1941 or '40.

Q. That's all right. The next one?

A. That was purchased in Litchfield, Illinois, No. 18, at a grocery store.

Mr. Matthews: Your Honor, I would like the record to show a general description of these respective exhibits, which we now offer in evidence. Before making my statement, I offer them in evidence now.

Mr. Reno: This is objected to as being immaterial, and not tending to prove or disprove any issue in this case.

The Court: When was Exhibit 18 purchased?

The Witness: I believe it was purchased in 1942.

Q. Do you know where from?

A. Yes, at a grocery store in Litchfield.

The Court: What is the ground of your objection?

Mr. Reno: That the cans are immaterial or any matter to be proved by them immaterial, and having no probitive value in this case.

* * * * * * * * * * *

(Transcript, pp. 548-550)

The Court: * * * I shall sustain the objection and you may make your record.

Stipulation on Testimony of Bruce.

Mr. Matthews: May we have our exception, please?

The Court: Yes.

Mr. Matthews: We wish to make the proffer. May we offer these in evidence, Your Honor please?

The Court: Yes, the exhibits may be proffered, objected to, objection sustained, and exception taken.

Mr. Matthews: Thank you.

(Thereupon, the said cans were marked Defendants' Exhibits Nos. 14, 15, 16, 17 and 18, respectively.)

Stipulation on Testimony of Bruce, for Defendants.

(Transcript, pp. 550-552)

Mr. Kaufman: If the Court pleases, we have agreed with the United States attorney, subject to Your Honor's approval, that if Mr. Norman Bruce were called as a witness for the defense he would testify, subject to objection by the Government on the ground of immateriality and subject to Your Honor's ruling, to the following state of facts:

"Q. What is your name?

"A. Norman Bruce.

"Q. What is your address?

"A. Chicago, Illinois.

"Q. By whom are you employed?

"A. Durkee Famous Foods, Inc.

"Q. In what capacity?

"A. Acting Manager of Fat and Oils Division.

"Q. Have you any other duties in your company?

"A. Sales Manager.

"Q. Are you their chemist?

"A. Yes.

"Q. Have you any other qualifications?

Stipulation on Testimony of Bruce.

"A. I am a member of the American Oil Chemists Society and American Association of Cereal Chemists.

"Q. What is the business of your company?

"A. Manufacturer and sale of edible vegetable oils and fats and other food products.

"Q. Are you familiar with the processing and distribution of vegetable fats and oils?

"A. Yes.

"Q. Did you ship vegetable oil products in 1940 and 1941 to Litchfield Creamery Company?

"A. Yes.

"Q. What oils did you ship them?

"A. In 1940 we shipped coconut oil and cotton-seed oil. In 1941 we shipped coconut oil used in other food products?

"A. Yes. In candies, oleomargarine, shortening, and baked goods.

"Q. Is the kind of cotton-seed oil shipped to Litchfield Creamery Company used in other food products?

"A. Yes. In shortenings, oleomargarine, and baked products.

"Q. You mentioned coconut and cotton-seed oil and the change from one to another. What is the situation regarding coconut oil at present?

"A. Because of the War Production Board order in 1942 it is not available for food uses.

"Q. What are the general uses for vegetable oils, such as coconut and cotton-seed oil?

"A. They are used in almost every type of baking, shortenings, oleomargarine, salad oils, cooking oils, and other products.

"Q. Do you know the amount of vegetable oil used in this country in 1941 for food purposes?

"A. Approximately 1,450,000,000 pounds.

"Q. How was the oil shipped to the Litchfield Creamery Company by your company?

"A. In 400-pound sealed drums.

"Q. What was the purity of the oil shipped in 1940 and 1941?

"A. Absolutely pure."

Is that statement as read by counsel for the defendants agreed to by counsel for the Government?

Mr. Reno: It is, Your Honor, subject to the Government's objection, of course.

The Court: Yes.

. . . . . .

(Transcript, p. 596)

Mr. Matthews: Your Honor, we understand the Government have rested and, of course, we have rested.

We now respectfully move the Court to acquit the defendants, all three of them, which is tantamount, I take it, to a directed verdict of not guilty in the event a jury were present.

We also move to acquit the individual defendants, Mr. Hartke and Mr. Hauser, and, of course, the corporate defendant. In other words, the motion is joint and separate.

. . . . . .

(Transcript, pp. 601-602)

The Court: I will say to you gentlemen, that this case, either way I decide it, should go to the Circuit Court of Appeals and to the Supreme Court, it is that important. I feel it incumbent upon me to file a finding of fact as to each of these defendants and a conclusion of law as to each of them. In my effort to do that, I want the assistance of able counsel who have tried this case. I want each side to take up the corporation and then take up each individual defendant, and state what your con-

tention is as to the facts the Court should find and from that finding the law upon which you base your conclusion that the defendants or either of them should be found not guilty, and, on the other hand, the Government will take each individual defendant, find the facts as shown by this record as to each individual defendant and the conclusions of law that you are of the opinion the Court should reach in this case.

I can't see that it would be of material help to exchange briefs in that case. How much time would you like to have to do that?

. . . . . .

(Transcript, p. 610)

The Court: With that understanding, this case is now considered submitted to the court subject to the filing of briefs as hereinbefore in the record detailed.

[fol. 277] PROCEEDINGS IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE FOURTH CIRCUIT

No. 5169

CAROLENE PRODUCTS COMPANY, a Corporation, CHARLES HAUSER and WILLIAM H. HARTKE, Appellants,

versus

UNITED STATES OF AMERICA, Appellee

Appeal from the District Court of the United States for the Northern District of West Virginia, at Wheeling

September 11, 1943, the duplicate notice of appeal is filed and the cause docketed.

Note: The duplicate notice of appeal is in the words and figures following, to-wit:

DISTRICT COURT OF THE UNITED STATES FOR THE NORTHERN DISTRICT OF WEST VIRGINIA

Indictment No. A-5216

UNITED STATES OF AMERICA

vs.

CAROLENE PRODUCTS COMPANY, a Corporation, and CHARLES HAUSER and WILLIAM H. HARTKE

Names and Addresses of Appellants and each of them:

Carolene Products Company, a corporation, Litchfield, Illinois: Charles Hauser, Litchfield, Illinois; William H. Hartke, Litchfield, Illinois.

Names and Addresses of Attorneys for Appellants and each of them:

Kaufman & Cronan, 30 Broad Street, New York, N. Y.; Handlan, Garden & Matthews, 1226 Chapline Street, Wheeling, West Virginia; Samuel H. Kaufman, 30 Broad Street, New York, N. Y.; Edward Rohr, 30 Broad Street, New York, N. Y.; G. Alan Garden, 1226 Chapline Street, Wheeling, West Virginia; Howard D. Matthews, 1226 Chapline

Street, Wheeling, West Virginia; Lester C. Hess, 1226 [fol. 278] Chapline Street, Wheeling, West Virginia.

Offense: Violation of Sections 61, 62 and 63, Title 21 U. S. C. A.

Date of Judgment: September 9, 1943.

Brief description of judgment or sentence:

"That Carolene Products Company, on Count No. 1 of Indictment No. A-5216, be fined $1,000.00;
On Count No. 2, it be fined $1,000.00;
On Count No. 3, fined $1,000.00;
On Count No. 4, $1,000.00;
On Count No. 5, $1,000.00;
On Count No. 6, $1,000.00;
On Count No. 7, $1,000.00;
On Count No. 8, $1,000.00.

In other words, the defendant, Carolene Products Company is fined $1,000.00 on each of the 8 counts in the indictment, making a total of $8,000.00.

That the defendant, Charles Hauser, on Count No. 1, be fined $1,000.00, and further that he be committed to the custody of the Attorney General of the United States, or his authorized representatives, for imprisonment for the period of 6 months.

On Count No. 2, the defendant, Charles Hauser, be fined $1,000.00, and shall be committed to the custody of the Attorney General of the United States, or his authorized representative, for imprisonment for the period of 6 months; the sentence under Count No. 2 to begin at the expiration of the sentence under Count No. 1.

In other words, the sentences on Count No. 1 and Count No. 2 shall run consecutively.

On Count No. 3, the defendant, Charles Hauser, be fined $1,000.00 and shall be committed to the custody of the Attorney General of the United States, or his authorized representative, for imprisonment for the period of 6 [fol. 279] months. This 6 months period to run concurrently with the 6 months penalty pronounced under Count No. 1.

On Count No. 4, the defendant, Charles Hauser, be fined $1,000.00 and shall be committed to the custody of the Attorney General of the United States, or his authorized rep-

resentative, for imprisonment for the period of 6 months, to run concurrently with the sentence of 6 months pronounced under Count No. 2.

On Count No. 5, the defendant, Charles Hauser, be fined $1,000.00, and placed on probation for the period of 6 months. Said probation to begin at the expiration of sentence of imprisonment pronounced on Counts Nos. 2 and 4.

On Count No. 6, the defendant, Charles Hauser, be fined $1,000.00, and placed on probation for the period of 6 months; said probation to begin at the expiration of the sentence of probation pronounced under Count No. 5.

On Count No. 7, the defendant, Charles Hauser, be fined $1,000.00, and be further placed on probation for the period of 6 months, to begin at the expiration of the probation provided for in sentence under Count No. 6.

On Count No. 8, the defendant, Charles Hauser, shall be fined $1,000.00, and be further sentenced to 6 months probation, to begin at the expiration of the probation hereinbefore provided under Count No. 7.

That the defendant, William H. Hartke, on Count No. 1, be fined $1,000.00, and further that he be committed to the custody of the Attorney General of the United States, or his authorized representative, for imprisonment for the period of 6 months.

On Count No. 2, the defendant, William H. Hartke, be fined $1,000.00, and shall be committed to the custody of the Attorney General of the United States, or his authorized representative for imprisonment for the period of 6 months; the sentence under Count No. 2 to begin at the expi-
[fol. 280] ration of the sentence under Count No. 1.

In other words, the sentences on Count No. 1 and Count No. 2 shall run consecutively.

On Count No. 3, the defendant, William H. Hartke, be fined $1,000.00 and shall be committed to the custody of the Attorney General of the United States, or his authorized representative, for imprisonment for the period of 6 months. This 6 months period to run concurrently with the 6 months penalty pronounced under Count No. 1.

On Count No. 4, the defendant, William H. Hartke, be fined $1,000.00 and shall be committed to the custody of the Attorney General of the United States, or his authorized representative, for imprisonment for the period of 6 months, to run concurrently with the sentence of 6 months pronounced under Count No. 2.

On Count No. 5, the defendant, William H. Hartke, be fined $1,000.00, and placed on probation for the period of 6 months. Said probation to begin at the expiration of the sentence of imprisonment pronounced on Counts Nos. 2 and 4.

On Count No. 6, the defendant, William H. Hartke, be fined $1,000.00, and placed on probation for the period of 6 months; said probation to begin at the expiration of the sentence or probation pronounced under Count No. 5.

On Count No. 7, the defendant, William H. Hartke, be fined $1,000.00, and be further placed on probation for the period of 6 months, to begin at the expiration of the probation provided for in sentence under Count No. 6.

On Count No. 8, the defendant, William H. Hartke, shall be fined $1,000.00, and be further sentenced to 6 months probation, to begin at the expiration of the probation hereinbefore provided under Count No. 7.

Name of prison where now confined, if not on bail:

Defendants, Charles Hauser and William H. Hartke; [fol. 281] committed to the custody of the Attorney General of the United States, or his authorized representative.

We, the above-named Appellants and each of us, hereby appeal to the United States Circuit Court of Appeals for the Fourth Circuit from the judgment above-mentioned on the grounds set forth below.

Carolene Products Company, a Corporation, by Charles Hauser, Its President; Charles Hauser, William H. Hartke, Appellants.

Dated: September 10, 1943.

Grounds of Appeal:

1. The lower Court erred in precluding the defendants and each of them from establishing that the products referred to in the indictment are not adulterated articles of food, injurious to the public health and their sale does not constitute a fraud on the public.

2. The lower Court erred in failing to find that the statute is not applicable to the products referred to in the indictment and that they were not within the contemplation of Congress at the time of passage of said statute.

3. The lower Court erred in overruling defendants' written Motion to Quash the indictment and each count thereof, in overruling the defendants' Demurrer to the indictment and each count thereof, in sustaining the Motion of the United States of America to strike from the record herein defendants' written Plea in Abatement, said Plea in Abatement being designated in the Order of the Court as Defendants' Special Plea.

4. The lower Court erred in finding that the products referred to in the indictment are subject to the provisions of the statute and in failing to find that if said statute is applicable to said products, then said statute is unconstitutional as applied to said products.

[fol. 282] 5. The lower Court erred in sustaining the objection of the United States of America to the testimony (other than on the identification and qualification as experts) of defendants' witnesses, Howard J. Cannon, Dr. Oscar F. Bradford, Dr. Anton Julius Carlson, Dr. Robert S. Harris, Norman Bruce and in sustaining the objection to the introduction of Defendants Exhibits 12 and 13.

6. The lower Court erred in overruling the Motion of the defendants and each of them to exclude the testimony of the United States of America and for a verdict or finding of not guilty as to said defendants and as to each of them separately, said motions being made at the close of the Government's evidence and after the Government had rested its case.

7. The lower Court erred in overruling the Motion of defendants and each of them to direct a verdict of not guilty as to the defendants and each of them or make a finding acquitting the defendants and each of them, said Motion being joint and several as to each and all of said defendants, and said Motion having been made at the conclusion of all the testimony and after the Government and the defendants had rested.

8. The lower Court erred in overruling the Motion of the defendants and each of them in arrest of judgment herein and in overruling the Motion of the defendants and each of them for a new trial herein.

9. The verdict and finding of the Court as to each and all of the defendants herein is contrary to the law of the case.

10. There is no legal evidence in the case to sustain the verdict and finding of the Court as to the guilt of the defendants and each of them or any of them.

11. As to the defendant, Charles Hauser, the lower Court erred in overruling the Motion of Charles Hauser for a [fol. 283] directed verdict or finding of not guilty as to him after he had been called to the witness stand by the United States of America and certain testimony was elicited from him by the United States Attorney. The calling of the said defendant, Charles Hauser, as a witness on behalf of the Government by the United States Attorney was an invasion of the constitutional rights of the said defendant, Charles Hauser.

12. As to the defendant, William H. Hartke, the lower Court erred in overruling the Motion of the defendant, William H. Hartke, for a directed verdict or finding of not guilty as to him after he had been called to the witness stand by the United States of America and certain testimony was elicited from him by the United States Attorney. The calling of the said defendant, William H. Hartke, as a witness on behalf of the Government by the United States Attorney was an invasion of the constitutional rights of the said defendant, William H. Hartke.

13. The Court admitted improper, incompetent and irrelevant testimony offered by the United States of America to which objections were respectively made and exceptions respectively saved as to purported conversations between the witness, John T. Sullivan and one William Howard Thompson, Manager of the Litchfield Creamery Company, Warsaw, Indiana, plant relative to who were the active and directing heads of the Carolene Products Company during April 1941, and the answer made by said Thompson to said witness Sullivan. (Tr. pp. 272-273); and, likewise, certain conversations between the said Sullivan and the said Thompson relative to the operation and nature of the business of the Litchfield Creamery Company at its Warsaw, Indiana, plant and the connection thereof with the corporate defendant, Carolene Products Company. (Tr. p. 239-265).

14. The lower Court erred in sustaining the objection of the United States of America to the introduction in

[fol. 284] evidence of each of certain photographs of the plant of the Litchfield Creamery Company at Litchfield, Illinois, identified in the record as Defendants Exhibits for Identification Nos. 2 to 8, inclusive, and in sustaining the objection of the United States of America to the introduction in evidence of each of certain photographs of the Warsaw, Indiana, plant of the Litchfield Creamery Company, identified as Defendants Exhibits for Identification Nos. 9 to 11, inclusive (Tr. pp. 461-462); in sustaining the objection of the United States of America to the introduction in evidence of each of certain cans of various substances identified as Defendants Exhibits Nos. 14 to 18, inclusive, (Tr. p. 549) and in overruling the objection of defendants to the question asked of the witness, Thompson, as to whether he packed any genuine evaporated milk in the same sized cans that he packed the milk compound (Tr. p. 66).

Same day, to-wit, September 11, 1943, clerk's statement of docket entries is filed.

ORDER AS TO BAIL, ETC.—Filed September 13, 1943

UNITED STATES CIRCUIT COURT OF APPEALS, FOURTH CIRCUIT

No. 5169

UNITED STATES OF AMERICA

versus

CAROLENE PRODUCTS CO., a corporation, and CHARLES HAUSER and WILLIAM HARTKE

ORDER

This matter coming on to be heard before the undersigned Senior Circuit Judge of the Fourth Circuit, on the application of Charles Hauser and William Hartke to be admitted to bail pending appeal to the Circuit Court of Appeals, and being heard; and the undersigned being of opinion that [fol. 285] there is a sufficient question in the case to justify the granting of bail pending appeal, and the same being admitted by the Assistant Attorney General of the United States:

Now, therefore, it is ordered that the said Charles Hauser and William Hartke be admitted to bail in the sum of $5,000.00 each.

It is further ordered that this case be set down for hearing at the October term of the Circuit Court of Appeals at Richmond, Va. to be heard on Wednesday, October 6th, 1943.

It is further ordered that copies of this order be filed in the office of the Clerk of the Circuit Court of Appeals at Richmond, Va., and also in the office of the Clerk of the District Court of the United States for the Northern District of West Virginia at Elkins, W. Va.

Done at Charlotte, N. C., this the 11th day of September, 1943.

John J. Parker, Senior Circuit Judge.

September 15, 1943, the appearance of Samuel H. Kaufman is entered for the appellants.

September 16, 1943, the appearance of Samuel H. Kaufman, Howard D. Matthews, G. Alan Garden, Lester C. Hess and Edward Rohr is entered for the appellants.

September 23, 1943, the transcript of record is filed.

Same day, the original exhibits are certified up.

September 28, 1943, petition of appellants for permission to file brief in excess of fifty printed pages is filed.

ORDER GRANTING SPECIAL PERMISSION TO APPELLANTS TO FILE BRIEF IN EXCESS OF FIFTY PRINTED PAGES—Filed and Entered October 4, 1943.

(Style of Court and Title Omitted)

Upon the Application of the Appellants, by their counsel, [fol. 286] and for good cause shown,

Special Permission is hereby granted to said Appellants to file a brief in excess of fifty printed pages, but not exceeding seventy-five printed pages in the above entitled case.

October 4th, 1943.

John J. Parker, Senior Circuit Judge.

October 4, 1943, brief on behalf of appellants is filed.

Same day, appendix to brief of appellants is filed.

October 6, 1943, brief on behalf of appellee is filed.

Same day, the appearance of Joe V. Gibson, U. S. Attorney; Mark C. Reno, Special Assistant to the Attorney

General, and John A. Murphy, Attorney, Federal Security Agency, Food & Drugs Division, is entered for the appellee.

ARGUMENT OF CAUSE

October 6, 1943, (October term, 1943) cause came on to be heard before Parker, Soper and Dobie, Circuit Judges, and was argued by counsel and submitted.

[fol. 287] OPINION—Filed January 10, 1944

UNITED STATES CIRCUIT COURT OF APPEALS, FOURTH CIRCUIT

No. 5169

CAROLENE PRODUCTS COMPANY, a Corporation, and CHARLES HAUSER and WILLIAM H. HARTKE, Appellants,

versus

UNITED STATES OF AMERICA, Appellee

Appeal from the District Court of the United States for the Northern District of West Virginia, at Wheeling
Criminal

(Argued October 6, 1943. Decided January 10, 1944)

Before Parker, Soper and Dobie, Circuit Judges

SAMUEL H. KAUFMAN and HOWARD D. MATTHEWS (Edward Rohr; Handlan, Garden & Matthews, and Kaufman & Cronan on brief) for Appellants; and Joe V. Gibson, U. S. Attorney, and Mark C. Reno, Special Assistant to the Attorney General, (Ezra E. Hamstead, Assistant U. S. Attorney, on brief) for Appellee.

[fol. 288] DOBIE, Circuit Judge:

The United States District Court for the Northern District of West Virginia convicted the Carolene Products Company, its President, Charles Hauser, and its Vice-President, William H. Hartke, of a violation of the Filled Milk Act of 1923, 42 Stat. 1486, 21 U. S. C. A. § 61 et seq.

The facts are undisputed and we accordingly adopt the following statement made by the court below:

"The Carolene Products Company is a Michigan Corporation, whose sole business is the sale of three products, known respectively as 'Milnot,' 'Milnut', and 'Carolene.' Milnut was, briefly, a product resulting from the mixture of coconut oil, skimmed milk, and fish oils. Milnot was the same product except that cottonseed oil was substituted for coconut oil. Both of these products are sold under the name of 'Carolene.' Since, for the purpose of this case the distinction between the three products is entirely immaterial, I will refer to the company's product as 'Carolene' throughout this opinion.

Carolene is manufactured by the Litchfield Creamery Company, a corporation, operating creameries in Litchfield, Illinois, and Warsaw, Indiana. Throughout this opinion all dates, when material, will be as of the year 1941, unless specifically stated otherwise.

The defendant, Charles Hauser, was President of the Carolene Products Company; was one of the original incorporators thereof, and a director of that company. The defendant, William H. Hartke, was President of the Litchfield Creamery Company and Vice-President of the Carolene Products Company. The main offices of the Carolene Products Company were maintained at the Litchfield Creamery Company's Litchfield plant and the same rooms in that plant served for offices of both the Carolene Products Company and the Litchfield Creamery Company. Charles [fol. 289] Hauser's office was in the Litchfield Creamery Company's plant, from which office he carried on his duties in relation to both companies. This same office was used by Hartke to transact his business in connection with the two companies. In short, the Carolene Products Company was a corporation, which marketed one of the products of the Litchfield Creamery Company.

The indictment in this case, as noted above, is brought under Title 21, Sections 61, 62, and 63, which reads as follows:

'Section 61. Filled milk; definitions. Whenever used in sections 62 and 63 of this title——

'(a) The term 'person' includes an individual, partnership, corporation, or association.

'(b) The term 'interstate or foreign commerce' means commerce (1) between any State, Territory, or possession, or the District of Columbia, and any place outside thereof; (2) between points within the same State, Territory, or possession, or within the District of Columbia, but through any place outside thereof; or (3) within any Territory or possession, or within the District of Columbia; and

'(c) The term 'filled milk' means any milk, cream, or skimmed milk, whether or not condensed, evaporated, concentrated, pow-ered, dried, or desiccated, to which has been added, or which has been blended or compounded with, any fat or oil other than milk fat, so that the resulting product is in imitation or semblance of milk, cream, or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried, or desiccated. This definition shall not include any distinctive proprietary food compound not readily mistaken in taste for milk or cream or for evaporated, condensed, or powdered milk, or cream where such compound (1) is prepared and designed for feeding infants and young children and customarily used in the order of a physician; (2) is packed in individual cans containing [fol. 290] not more than sixteen and one-half ounces and bearing a label in bold type that the content is to be used only for said purpose; (3) is shipped in interstate or foreign commerce exclusively to physicians, wholesale and retail druggists, orphan asylums, child-welfare associations, hospitals, and similar institutions and generally disposed of by them.

'62. Same; manufacture, shipment, or delivery for shipment in interstate or foreign commerce prohibited. It is declared that filled milk, as herein defined, is an adulterated article of food, injurious to the public health, and its sale constitutes a fraud upon the public. It shall be unlawful for any person to manufacture within any Territory or possession, or within the District of Columbia, or to ship or deliver for shipment in interstate or foreign commerce, any filled milk.

'63. Same; penalty for violations of law; acts, omissions, and so forth, of agents. Any person violating any provision of sections 61 and 62 of this title shall upon conviction thereof be subject to a fine or not more than $1,000 or imprisonment of not more than one year, or both.

When construing and enforcing the provisions of said sections, the act, omission, or failure of any person acting for or employed by any individual, partnership, corporation, or association, within the scope of his employment or office, shall in every case be deemed the act, omissions, or failure, of such individual, partnership, corporation, or association, as well as of such person.'

The indictment is in eight counts, charging eight separate shipments of filled milk from Warsaw, Indiana, to Clarksburg, Parkersburg, Weston, Morgantown, and Moundsville, in the Northern District of West Virginia. All these shipments were made between February and July of the year 1941, and totalled 5,800 cases, of 48 cans to the case.

Many of the pertinent facts were stipulated upon the trial of this case. Such proof as the Government did intro- [fol. 291] duce was not denied by the defendants. Therefore, there is really no dispute as to the facts involved. They are briefly as follows:

The Litchfield Creamery Company would bring into its Warsaw, Indiana, plant, whole milk procured from the farmers in that vicinity. The cream was then separated from this milk. To the skimmed milk thus obtained was added a sufficient quantity of cottonseed oil to replace the butter fat extracted with the cream. There was also added a small quantity of high potency fish-liver oil to introduce vitamins A and D into the product. The entire product was then evaporated to the consistency of that ordinarily found in condensed whole milk. It was then homogenized; that is, it was forced under great pressure through small openings, resulting in the breaking up of the fat globules in the cottonseed oil and distributing the same evenly through the entire body of the resulting mixture, thus insuring that when this product was canned the oil would not rise to the top but would remain suspended through the entire volume of milk. Upon the completion of the evaporation and homogenization, the product was placed in cans, the cans labeled and packed in cases. The cases, in turn, were placed in the warehouse at Warsaw. Thompson, the manager of the Warsaw plant, was originally employed by Hauser. He received his orders as to bills of lading from Hartke and Hauser.

The Company had salesmen calling upon the various wholesale grocers in the country and soliciting and taking orders for 'Carolene'. These orders were sent into the main office at Litchfield, and the Litchfield office would then contact the plant at Warsaw, usually by telephone, sometimes by written order, and instruct the Manager of the Warsaw plant to ship a designated number of cases of Carolene to a given purchaser. These cases were shipped by railway freight, the Carolene Products Company being designated as consignor. Payment for the goods was made to the office at Litchfield, checks being banked with a rubber-stamp endorsement of the Carolene Products Company. [fol. 292] This same business was being carried out at the Litchfield plant; however, in this particular case, all shipments were actually made from Warsaw.

In the year 1941, the Warsaw plant sold 440,000 cases, and the Litchfield plant, 1,150,000 cases of Carolene. Approximately half of this total output was shipped in interstate commerce.

The product 'Carolene' looked, tasted, and smelled like condensed whole milk and was of practically the same texture and consistency. It was packed in cans of the same size and shape customarily employed by packers of condensed whole milk.

. . . . . .

"The contention of the defendants was that the product 'Carolene' was a wholsome, nutritive article of food; that their labels properly branded the article; and that no fraud was perpetrated upon the public by its sale. For this reason they maintained that the filled milk act did not apply to this product. There is no contention by the Government that the defendants' labels violate any Act of Congress or regulation passed thereunder, and the labeling question is completely outside of this case. The other part of the defense; namely, that the product is wholesome and nutritive was argued at great length and with much ability by counsel for the defendants, both in their oral presentation and in their briefs filed with the Court. That argument boils down to about this contention, that about the time the filled milk act was passed, the commercial fortification of food products by the addition of vitamins not naturally present was not known to science. They contend that in

1923 medical science knew very little about vitamins. They further contend that the Congress' purpose in passing the filled milk act in 1923 was to keep the public from using as food a milk product from which the essential vitamins had been removed, and that now, in the light of present knowledge, it is possible to replace these vitamins by the [fol. 293] addition of fish oil, and that, therefore, their product 'Carolene' is not such a product as was intended by Congress to be prohibited; or that if the Court holds that it is such a product, that then the Act is unconstitutional."

The several defendants thus contend that (1) Carolene is a wholesome and nutritive food, (2) Carolene is not "in imitation or semblance of milk, cream or skimmed milk whether or not condensed", and (3) the labels on Carolene properly brand the article, so that no fraud is perpetrated on the public in its sale. For these reasons they allege that the Filled Milk Act of 1923 does not apply to Carolene.

Defendants further insist that if Carolene is held to be within the prohibition of the Act, then the Act is unconstitutional when so applied. The argument in this connection is that when Congress passed the Act in 1923 medical science knew very little about vitamins; and therefore the Congressional intent in enacting the statute was to protect the public against milk products from which the essential vitamins had been removed. Since the addition of fish oil to Carolene replaced the lost vitamins, defendants contend, there is no justification in fact or in law for their conviction under the statute as written and enacted.

The court below has carefully analyzed and unhesitatingly rejected each of these contentions. We agree with these conclusions and we feel further that the discussion in the written opinion of the District Court encompasses every aspect of the case in so lucid a manner that it is not necessary for us to repeat what has there been said.

In our recent decision of *Fides, A. G.* v. *Commissioner of Internal Revenue*, decided August 16, 1943, we had occasion to develop at great length the important difference between the legislative and the judicial functions in connection with statutory interpretation. Much of what was [fol. 294] stated in the *Fides* case is applicable to the instant situation. The fact that the inclusion of Carolene within the

ambit of the statute leads to a seemingly harsh and inequitable result does not justify our giving to the statute the restrictive construction for which the defendants contend. This matter is one for the consideration of the legislature and not the courts. *Cf. U. S. ex rel Marcus* v. *Hess*, 317 U. S. 537, 546. Our notion of expediency and propriety may not be substituted for the considered will of Congress, expressed in the clear and unambiguous terms of the Act. See, also, *Purity Extract Co.* v. *Lynch*, 226 U. S. 192.

The power of the legislature cannot be denied merely because an innocent article may conceivably fall within the class prohibited by the statute. *Carolene Products Co.* v. *Hanrahan*, 164 S. W. (2d) 597 (Ky. 1941). Congress may with constitutional impunity bar from interstate commerce goods which may be the subject of a fraudulent sale; although the goods themselves may not be injurious. *Seven Cases of Eckmans Alterative* v. *United States*, 239 U. S. 510.

The problem of the sale of filled milk products has had the frequent consideration of several state legislatures as well as the attention of Congress. An impressive array of courts, state and federal, has refused to accept the very contentions now presented to us by the defendants. *U. S.* v. *Carolene Products Co.*, 304 U. S. 144; *U. S.* v. *Carolene Products Co.*, 104 F. (2d) 969; *Hebe* v. *Shaw*, 248 U. S. 297; *Carolene Products Co.* v. *Evaporated Milk Assn.*, 93 F. (2d) 202; *Carolene Products Co.* v. *Wallace*, 27 F. Supp. 110, affirmed 307 U. S. 612; *Setzer* v. *Mayo*, 9 So. (2d) 280; *Mitchell, Kansas ex rel* v. *Sage Stores Co.*, decided by Kansas Supreme Court, October 2, 1943. Contra: *Mahoney* v. *Carolene Products Co.*, 2 F. (2d) 366. It would serve no useful purpose to repeat the arguments advanced in these [fol. 295] authorities. They are adequately discussed in the opinion below and we accept the conclusions therein reached, which are adverse to the contention of the defendants.

The individual defendants, Hauser and Hartke, next urge that they may not be held criminally liable for the illegal acts of the corporation. In this connection, the Government expressly admits that there is no evidence in the record to show that either of the individual defendants personally made, or even had any personal knowledge of, the eight specific shipments set out in the indictment. In their plea in abatement, however, Hauser and Hartke swore

that the Carolene Products Company's "business in interstate commerce was very substantial during the past years. Its business has been built up and developed by long and persistent effort and at great expense." Each stated these facts were true "of his own knowledge".

Furthermore, as was found by the court below:

"* * * the evidence conclusively shows that the individual defendants were the active, directing heads of both the Carolene Products Company and its parent corporation, the Litchfield Creamery Company, and that as such directing heads they caused the Carolene Products Company to engage in an extensive shipment of Carolene in interstate commerce. In this connection, it should be borne in mind that the Carolene Products Company had only one business, which was the sale of Carolene. Half of this business consisted of sales which resulted in shipping the product in interstate commerce. Therefore, under my ruling, 50% of the company's business was illegal. We do not here have the case of a corporation engaged in a proper and legal enterprise with an occasional violation of Federal Law resulting therefrom. We have a case in which 50% of the company's business resulted in violations of the filled milk act. No one could read the record in this case and come to any conclusion other than that Mr. Hartke and Mr. Hauser knew that the company was shipping this pro- [fol. 296] duct in interstate commerce practially every business day. We must also bear in mind that intent is not a necessary element of this offense.

* * * * * * *

"* * * Hauser was President of Carolene Products Company, and Hartke was Vice President. Both were directors and both maintained their offices in one of the plants in which 'Carolene' was manufactured. A corporation can act only through agents. Speaking with precise technical accuracy, it may be said that what happened in each instance alleged in the indictment was that the corporation, Carolene Products Company, committed the specific offense, and that the defendants, Charles Hauser, President, and William H. Hartke, Vice President, willfully and actively aided and abetted the corporation in this regard. There is an abundance of evidence in the record to convince me beyond a reasonable doubt, that that was precisely what

the two individual defendants did in this case; hence, since they are proven by the evidence to have been aiders and abettors, they must, under Title 18, Section 550, be held guilty as principals, and I now so hold them.

"As noted above, intent is not a necessary element of this offense, yet, common sense leads us to a query as to just why there is a Carolene Products Company. Hauser and Hartke had the Litchfield Creamery Company. This company was engaged in the manufacture and sale of general dairy products, including evaporated whole milk. It also manufactured this one product, 'Carolene', which it, for some reason, did not wish to sell under its own name, and for the sale of that one product organized a separate corporation. There must have been some reason for this else why the trouble and expense of maintaining two sets of books, two organizations, etc. Often corporations resort to a subsidiary to sell sub-standard goods. We all know that many of our large concerns sell defective products, 'seconds', by this means. But here, the defendants contended in their plea, demurrer, and all through the trial, [fol. 297] that 'Carolene' is as good and wholesome as condensed milk. There may be a legitimate answer, not in the record, but only one occurs to me, and that is that Hauser and Hartke knew Carolene violated the filled milk act and organized the company to protect the Litchfield Creamery Company from a violation of the law."

There is ample authority in support of the principle that the directing heads of a corporation which is engaged in an unlawful business may be held criminally liable for the acts of subordinates done in the normal course of business, regardless of whether or not these directing heads personally supervised the particular acts done or were personally present at the time and place of the commission of these acts. See *United States* v. *Dotterweich*, decided by the Supreme Court on November 22, 1943; *Wood* v. *United States*, 204 Fed. 55; *Austess* v. *United States*, 22 F. (2d) 594; *Johnson* v. *United States*, 62 F. (2d) 32; *Reid* v. *United States*, 44 F. (2d) 51; *Crall* v. *Commonwealth*, 49 S. E. 638 (Va. 1905); *People* v. *Detroit White Lead Works*, 46 N. W. 735 (Mich. 1890); *State* v. *Gilbert*, 251 N. W. 478 (Wis. 1933); *State* v. *Burnam*, 128 Pac. 218 (Wash. 1912);

In the light of the record of this case, we are inexorably forced to the conclusion that the individual defendants are both chargeable under the law with knowledge of the eight specific unlawful shipments by the corporation as set out in the indictment. Hauser and Hartke are therefore each criminally responsible for the illegal conduct of the Carolene Products Company, in connection with these shipments.

This brings us to the final error alleged to have been committed by the District Court. The individual defendants, Hartke and Hauser, were called to the stand as government witnesses, testifying without objection. Hartke first gave his name and residence and stated that he was [fol. 298] a stockholder and president of the Litchfield Company in 1941. He was then asked whether the company made a report to the Secretary of State of Illinois for the year 1941, whereupon objection was made that the witness was a defendant in a criminal case and should not be examined. The question was not further pressed, but counsel stipulated as to the official connection between Hartke and Hauser and the company in 1941. Hartke then testified, without objection, that he had been connected with the Litchfield Company since 1920, and with the Carolene Company since its incorporation. Objection to further testimony was again made and no further questions were asked. A motion to exclude the evidence so far as it applied to the witness was granted, with the consent of the District Attorney. The government then proved the connection of the individual defendants with the two corporations by certificate from the records of the state of incorporation.

Later in the trial the defendant, Hauser, was called to the stand by the United States. Objection was immediately made and no questions were asked other than the name of the witness, to which he made no reply. Defendants' counsel then moved for a directed verdict for the individual defendants but the motion was denied.

In this ruling there was no error. In so far as the purpose of calling the individual defendants to the stand related to the production of corporate records, the government was within its rights, for it is generally held in the federal courts that officers of a corporation may be required to produce and identify the corporate records even though the records may tend to incriminate them. *Wilson* v. *United States*, 221 U. S. 361, 384; *United States* v. *Austin-Bagley*

Corp., (C. C. A. 2), 31 F. (2d) 229, 233, cert. den. 279 U. S. 863; *United States* v. *Illinois Alcohol Co.*, (C. C. A. 2), 45 F. (2d) 145, cert. den. 282 U. S. 901; *In re Verser*-[fol. 299] *Clay Co.*, (C. C. A. 10), 98 F. (2d) 959, cert. den. 306 U. S. 639, and elaborate note in 120 *A. L. R.* 1402. Furthermore, the testimony actually elicited from the individual defendants was not only stricken out so far as it related to them, but was in substance actually introduced into the case by exhibits or by stipulation of counsel. Under these circumstances, there was no reversible error in refusing to enter a verdict for the individual defendants; but it is obvious that the practice of calling individual defendants to the stand in a criminal case is a dangerous one which should be employed only with scrupulous regard for their constitutional rights.

For the reasons assigned, the judgment of the District Court is affirmed.

Affirmed.

[fol. 300] JUDGMENT—Filed and Entered January 10, 1944

UNITED STATES CIRCUIT COURT OF APPEALS, FOURTH CIRCUIT

No. 5169

CAROLENE PRODUCTS COMPANY, a Corporation, CHARLES HAUSER and WILLIAM H. HARTKE, Appellants,

vs.

UNITED STATES OF AMERICA, Appellee

Appeal from the District Court of the United States for the Northern District of West Virginia

This Cause came on to be heard on the transcript of the record from the District Court of the United States for the Northern District of West Virginia, and was argued by counsel.

On Consideration Whereof, It is now here ordered and adjudged by this Court that the judgment of the said District Court appealed from, in this cause, be, and the same is hereby, affirmed.

January 10, 1944.

Armistead M. Dobie, U. S. Circuit Judge.

January 17, 1944, notice of and motion of appellants for a stay of mandate, etc., are filed.

ORDER STAYING MANDATE PENDING APPLICATION FOR WRIT OF CERTIORARI AND CONTINUING APPELLANTS CHARLES HAUSER AND WILLIAM H. HARTKE ON BAIL PENDING APPLICATION—Filed and Entered January 17, 1944.

(Style of Court and Title Omitted)

An application having been made to stay the mandate of this court herein and to continue the individual appellants on bail pending an application by defendants-appellants to the Supreme Court of the United States for a writ of certiorari to review the decision of this court and, in the event that such writ of certiorari is granted, until [fol. 301] the final disposition of the appeal by the Supreme Court, and notice of such application having been duly served on Hon. Joseph V. Gibson, United States Attorney for the Northern District of West Virginia, and Hon. Francis Biddle, Attorney General of the United States, and the matter having regularly come on to be heard and the Court being of the opinion that the application to stay the mandate and to continue the individual defendants on bail should be granted:

Now, therefore, it is

Ordered, that the mandate of this Court herein be, and the same is, hereby stayed pending an application by defendants-appellants to the Supreme Court of the United States for writ of certiorari to review the decision of this Court and, in the event that such writ is granted, until the final disposition of the appeal by the Supreme Court, and

It Is Further Ordered that the defendants-appellants Charles Hauser and William H. Hartke be, and they hereby are, continued on bail pending an application by defendants-appellants to the Supreme Court of the United States for a writ of certiorari to review the decision of this Court herein and, in the event that such writ is granted, until the final disposition of the appeal by the Supreme Court.

Done at Richmond, Virginia, the 17th day of January, 1944.

John J. Parker, Senior Circuit Judge.

Same day, to-wit, January 17, 1944, certified copy of order staying mandate and continuing appellants Charles Hauser and William H. Hartke on bail pending application for writ of certiorari transmitted to the Clerk of the District Court at Wheeling, W. Va.

[fol. 302] CLERK'S CERTIFICATE

UNITED STATES OF AMERICA,
Fourth Circuit, ss:

I, Claude M. Dean, Clerk of the United States Circuit Court of Appeals for the Fourth Circuit, do certify that the foregoing two (2) volumes is a true copy of the appendix to brief of appellant, and the proceedings in the said Circuit Court of Appeals in the therein entitled cause, as the same remain upon the records and files of the said Circuit Court of Appeals, and constitute and is a true transcript of the record and proceedings in the said Circuit Court of Appeals in said cause, made up in accordance with the request of counsel for the appellants, for use in the Supreme Court of the United States on an application for a writ of certiorari.

In testimony whereof, I hereto set my hand and affix the seal of the said United States Circuit Court of Appeals for the Fourth Circuit, at Richmond, Virginia, this 24th day of January, A. D., 1944.

Claude M. Dean, Clerk, U. S. Circuit Court of Appeals, Fourth Circuit. (Seal.)

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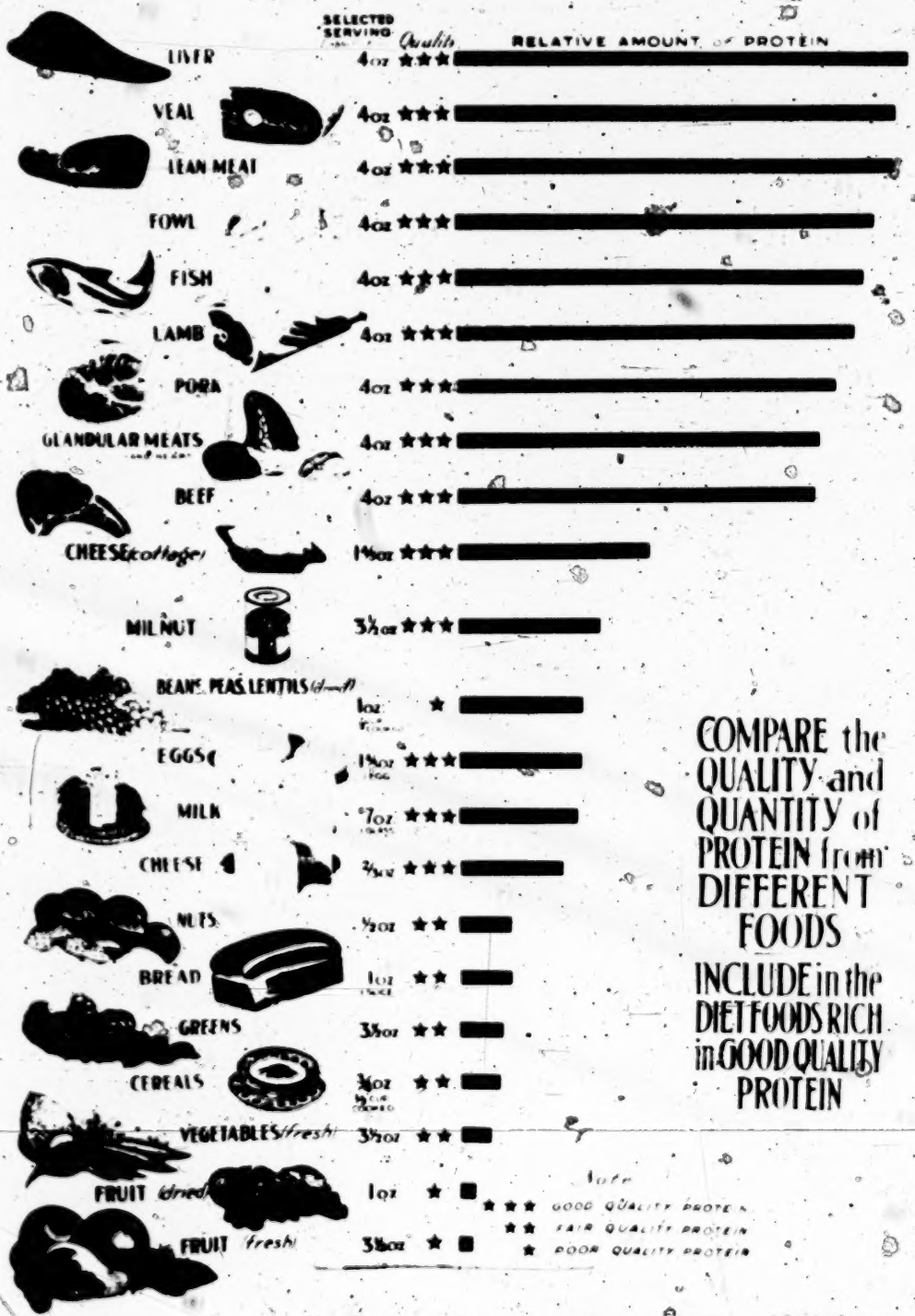
Food Value Charts

Presenting in Graphic Form
the Nutritive Value of
Common Foods

FOOD VALUES

PROTEIN

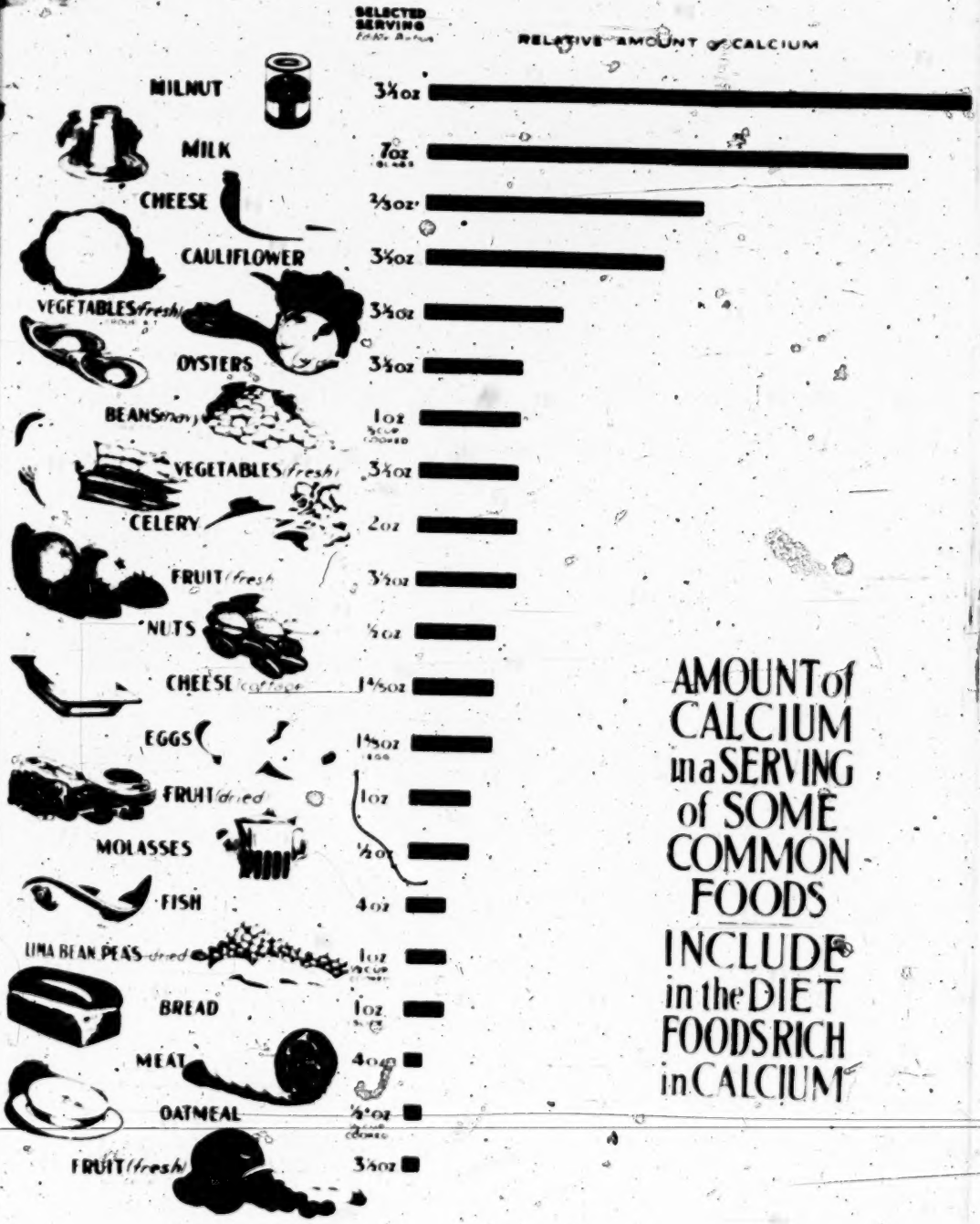


COMPARE the QUALITY and QUANTITY of PROTEIN from DIFFERENT FOODS

INCLUDE in the DIET FOODS RICH in GOOD QUALITY PROTEIN

FOOD VALUES

CALCIUM

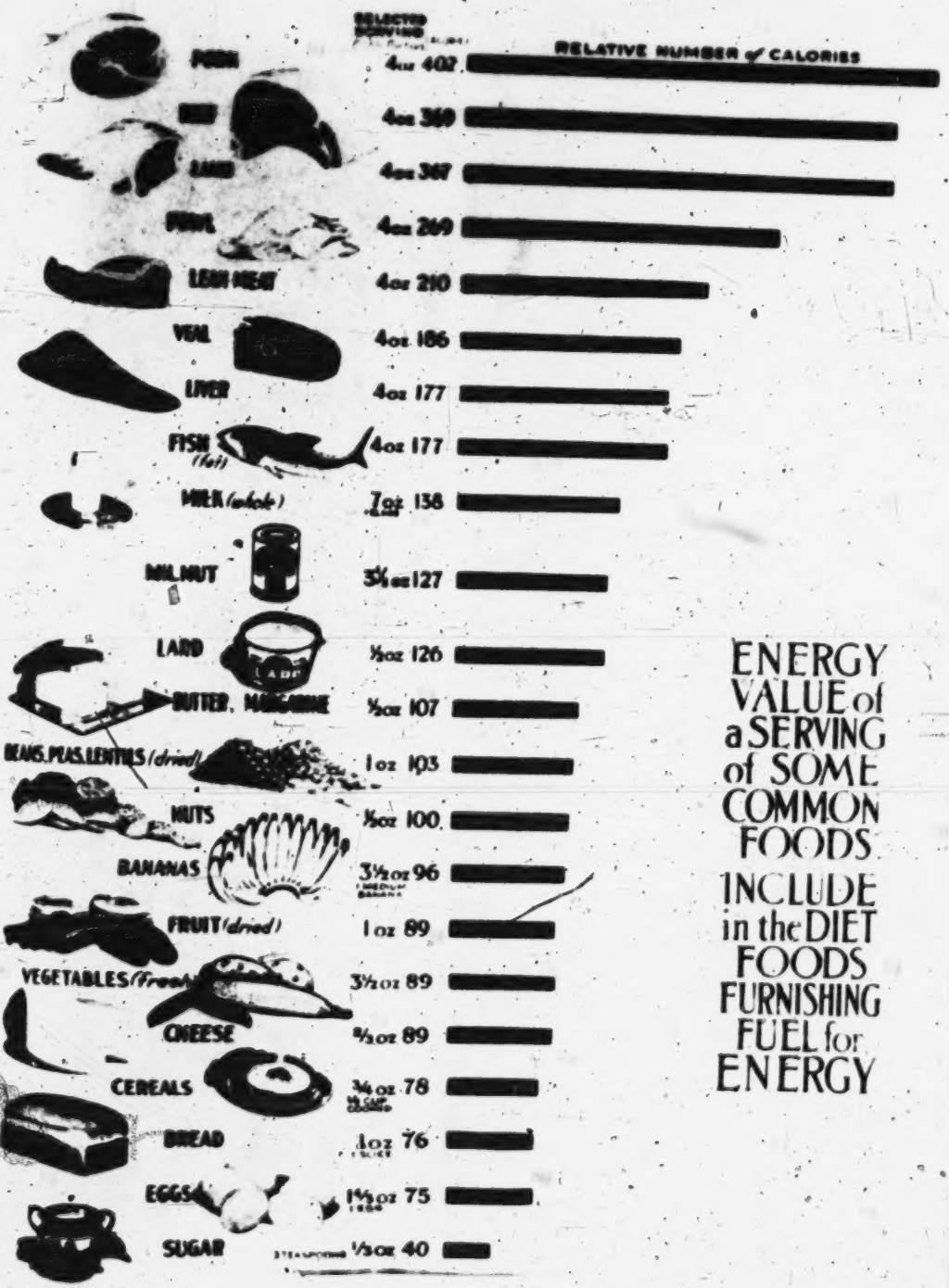


AMOUNT of CALCIUM in a SERVING of SOME COMMON FOODS

INCLUDE in the DIET FOODS RICH in CALCIUM

FOOD VALUES

CALORIES

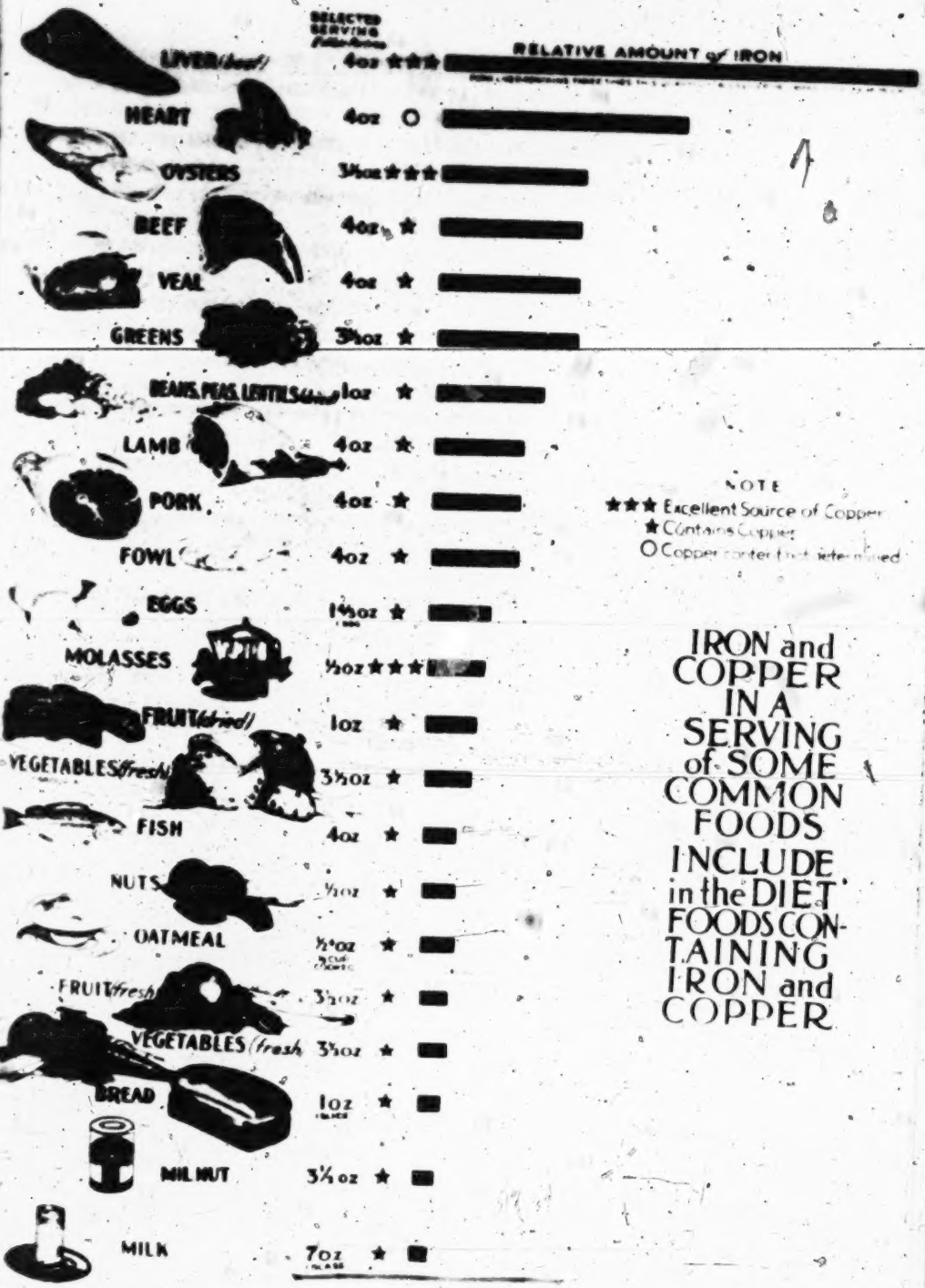


ENERGY VALUE of a SERVING of SOME COMMON FOODS

INCLUDE in the DIET FOODS FURNISHING FUEL for ENERGY

FOOD VALUES

IRON and COPPER

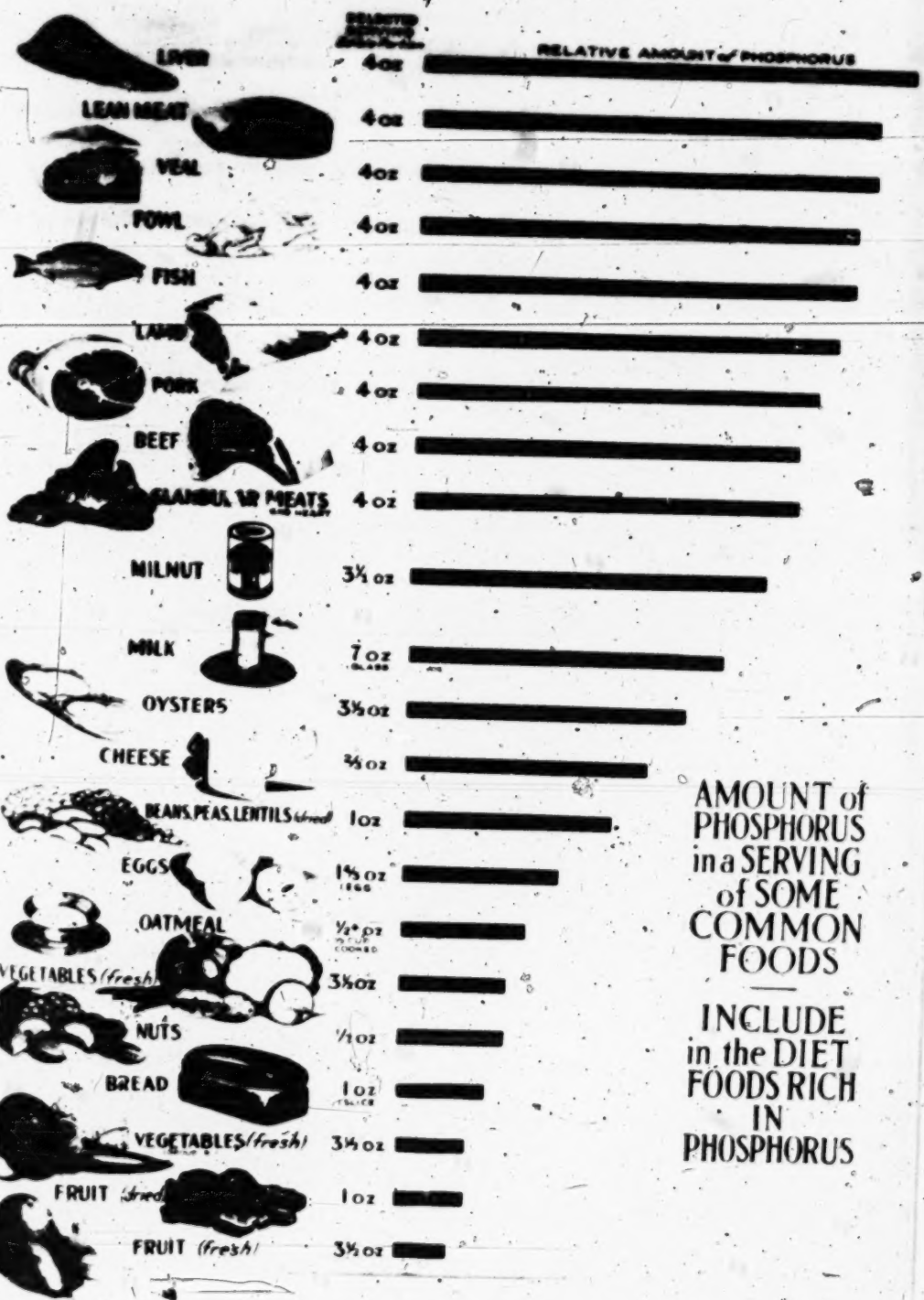


NOTE
★★★ Excellent Source of Copper
★ Contains Copper
○ Copper content not determined

IRON and COPPER IN A SERVING of SOME COMMON FOODS INCLUDE in the DIET FOODS CONTAINING IRON and COPPER

FOOD VALUES

PHOSPHORUS



AMOUNT of PHOSPHORUS in a SERVING of SOME COMMON FOODS

INCLUDE in the DIET FOODS RICH IN PHOSPHORUS

FOOD VALUES

VITAMINS

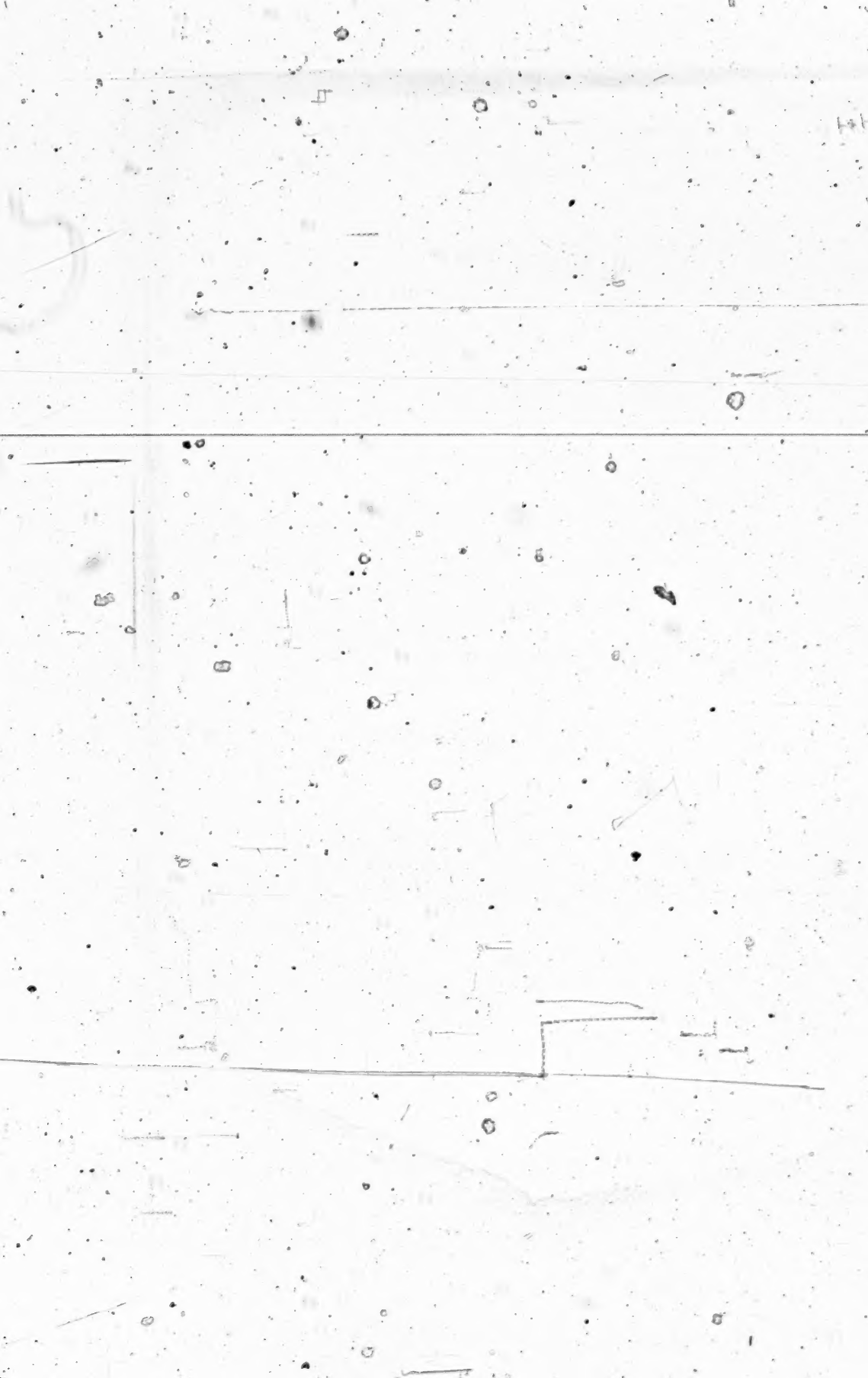
Common Foods as Sources of Vitamins

	A	B	C	D	G
LIVER	++ to +++	++	+	− to +	+++
GLANDULAR MEATS	+ to ++	++	+?		++ to +++
BEEF	+	++	− to +		++
VEAL	− to +	+?			++
PORK	− to +	+ to ++	?		++
LAMB	− to +	+	− to +		++
OYSTERS	++	++	+	++	++
COD LIVER OIL	++++	−	−	++++	−
EGGS	+++	+ to +++	− ?	++	+++
MILK NUT	+++	++	−	+++	+++
MILK	+++	++	− to +	− to +	+++
BUTTER	+++	−	−	+	−
OLEO MARGARINE (animal fat only)	+++	−	−	− to +	−
WHOLE WHEAT BREAD	++	++			++
APPLES BANANAS	+ to ++	+ to ++	++		++
ORANGES GRAPE FRUIT LEMONS	+ to ++	++	+++		++
STRING BEANS, PEAS	++	++	++ to +++		− to +
POTATOES	+	++	++		++
CARROTS	+++	++	++		++
LETTUCE	+ to ++	++	+++		++
SPINACH	+++	++	+++	− to +	++
TOMATOES, CABBAGE	++	++	+++		++

VITAMINS

Common Foods as Sources of Vitamins

	A	B	C	D	G
	I.U./100 gms.	I.U./100 gms.	I.U./100 gms.	I.U./100 gms.	mg./100 gms.
CALF LIVER	3100		660	10	2.7
BEEF, LEAN	52	50			.38
PORK, LEAN MUSCLE	0	370			.38
OYSTERS	140	150		5	
EGGS	700	50	0	15	.53
MILK, AVERAGE MARKET	146	16	43	3	.20
MILK, EVAPORATED	305	15	33	6	.33
MILK, SKIM	486	19	35	97	.35
BUTTER, AVERAGE	1500			80	
ORANGE JUICE	47	60	650		.11
GRAPEFRUIT	0	20	520		.12
BANANAS	190	30	180		.11
PEAS, GREEN	700		400		
POTATOES	28	40	150		.08
CARROTS, MATURE	3800	50	70		.15
LETTUCE, GREEN	2800	35	80		.15
LETTUCE, BLEACHED, ICEBERG	287	35	80		.08
SPINACH	17500	60	800		.38
TOMATOES, RIPE, RED	1050	35	300		.04
CABBAGE, YOUNG	35	50	550		.18
CABBAGE, MATURE	0	50	550		.12
BEANS, GREEN SNAP	700	40	250		.08



The Essentials of an Adequate Diet

PROTEIN—for building and repairing the body tissues

"They (experimental data) all point to the conclusion that when the life history of the individual is considered, a generous protein ingestion or one allowing a fair margin of safety over the lowest percentage which just suffices to induce maximal growth in the young serves to maintain vigor for the longest possible period."

McCollum and Simmonds

CALORIES—for heat and energy

"The well-known organic foodstuffs, carbohydrates, proteins and fats, . . . contain stored energy which in large part is liberated in the body. . . . The energy contained in any foodstuff may be determined accurately by measurement of the heat which it yields on combustion in a calorimeter. It is expressed in units of heat known as calories. . . ."

James S. McLester

CALCIUM—for building strong bones and teeth, and for regulating body processes

"In view of the high constructive and regulatory functions of calcium, it is important that the growing organism be at all times liberally supplied with this element."

Mary Swartz Rose

PHOSPHORUS—for building bones, teeth and certain body tissues, and for preventing dental decay

"Bone development may also be interfered with by inadequacy of the phosphorus supply, especially at early ages when the muscles also are growing rapidly and competing with the bones for the phosphorus which the blood brings."

H. C. Sherman

IRON—for building blood and for protecting against nutritional anemia

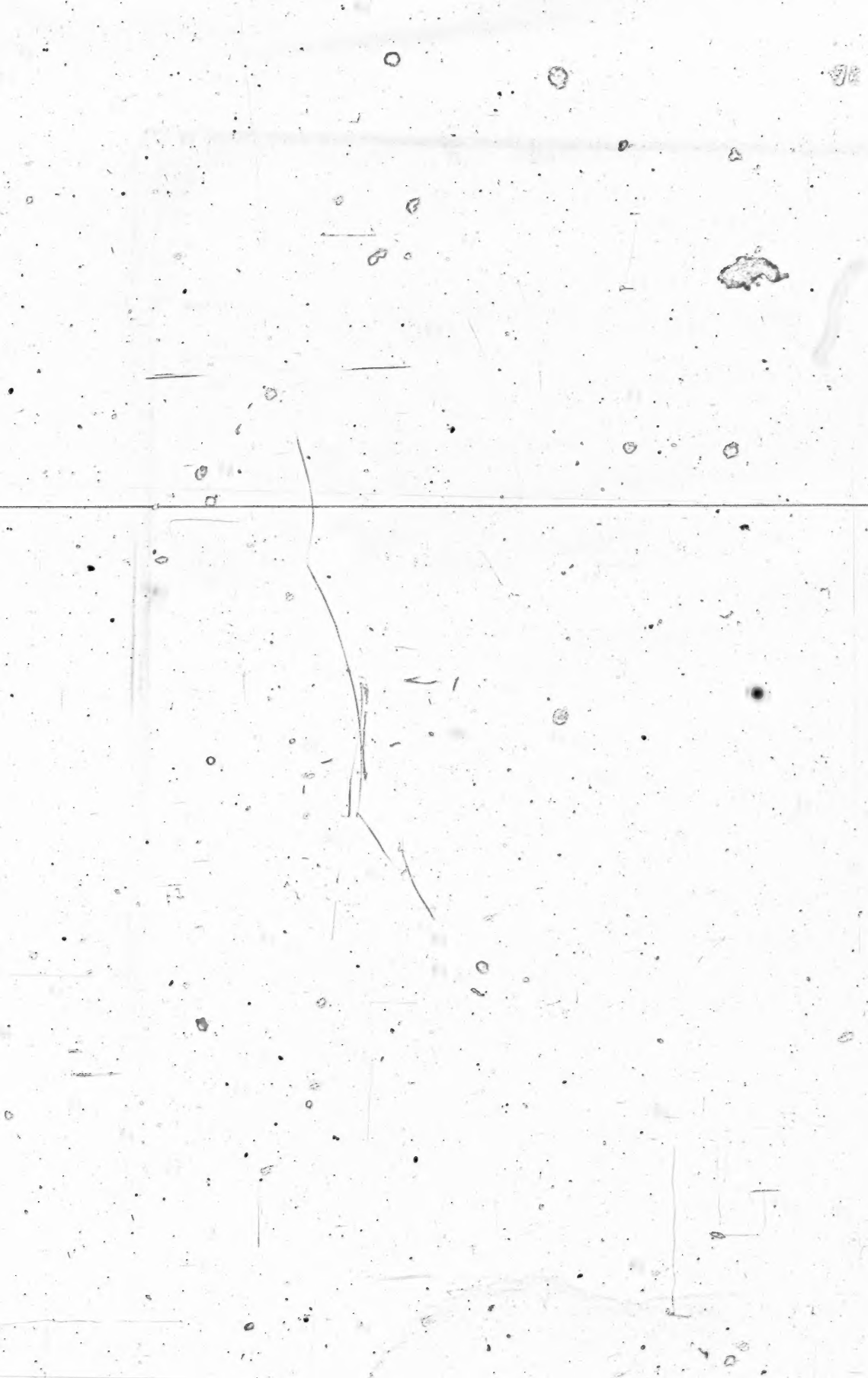
"Iron is an essential constituent of hemoglobin, the oxygen-carrying pigment of the blood."

McCollum and Becker

VITAMINS—for promoting growth, and for maintaining health

"As food constituents vitamins are characterized by the disproportion between the great importance of their nutritional functions and the very small amounts necessary for the adequate fulfillment of those functions."

British Medical Research Council.



DEFENDANTS EXHIBIT No. 13 307

COPY

13

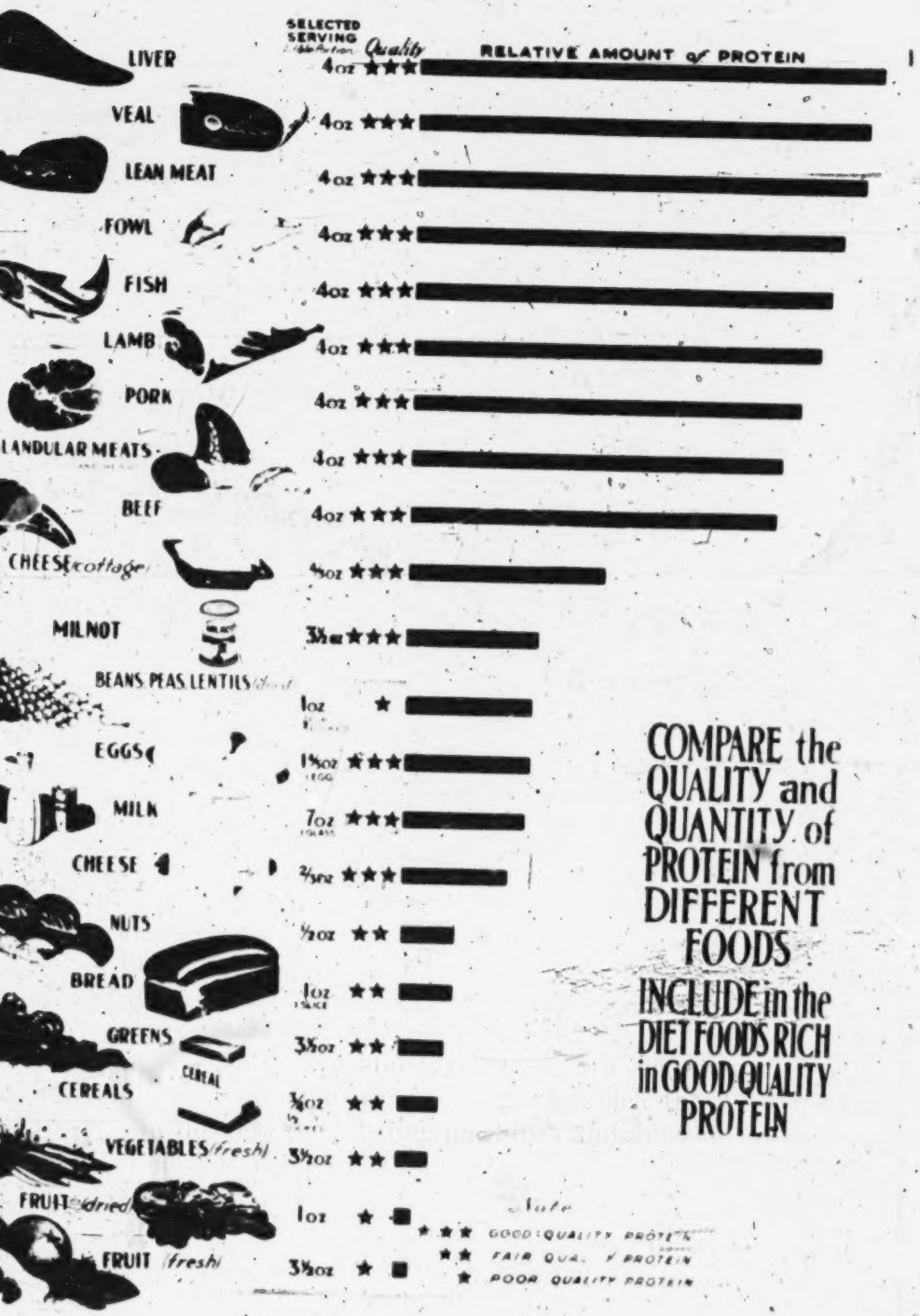
FOOD VALUE CHARTS

3rd Edition Revised

The Nutritive Value of Common Foods Presented in Graphic Form

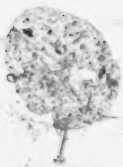
FOOD VALUES

PROTEIN



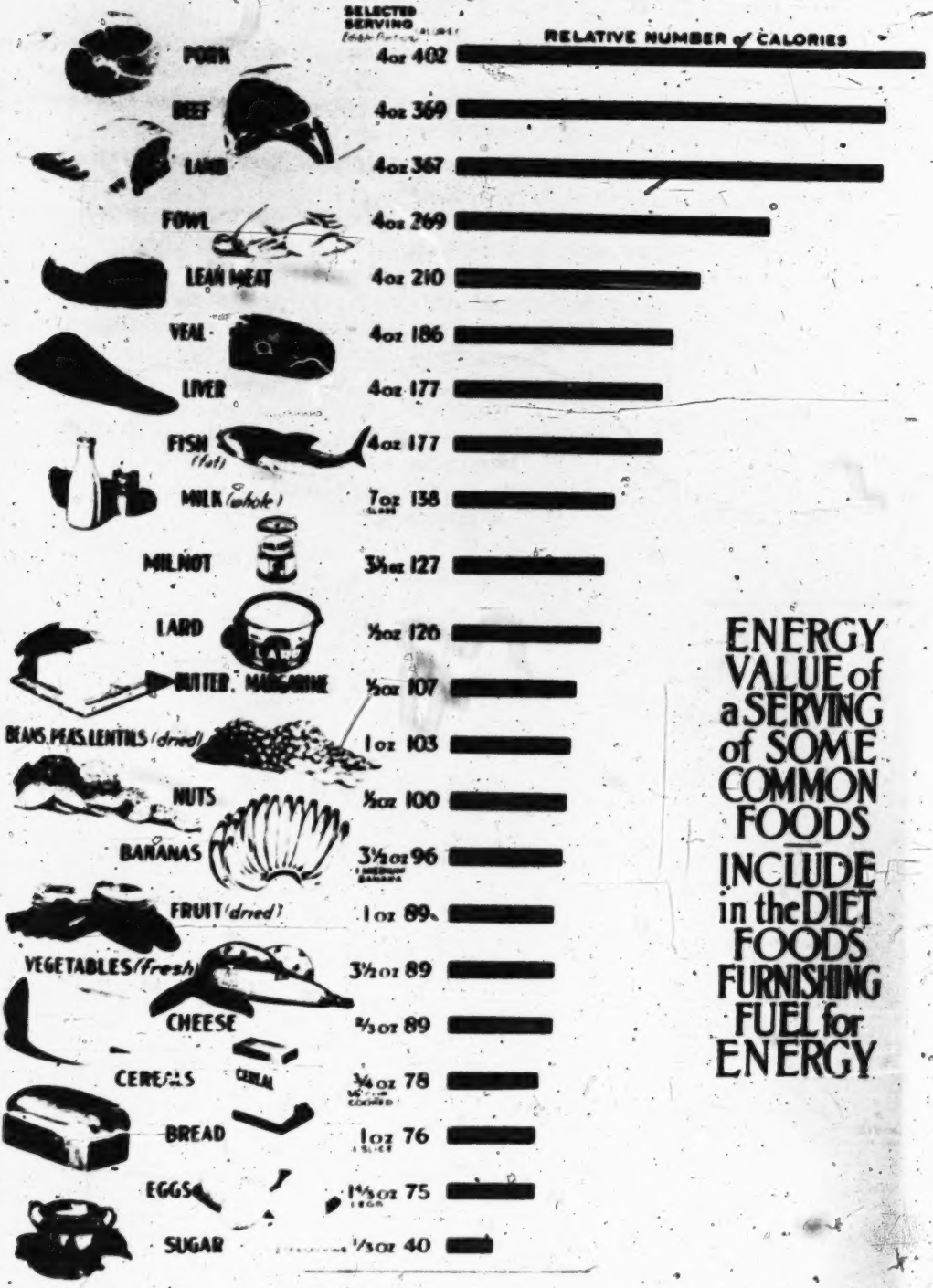
COMPARE the QUALITY and QUANTITY of PROTEIN from DIFFERENT FOODS

INCLUDE in the DIET FOODS RICH in GOOD QUALITY PROTEIN



FOOD VALUES

CALORIES

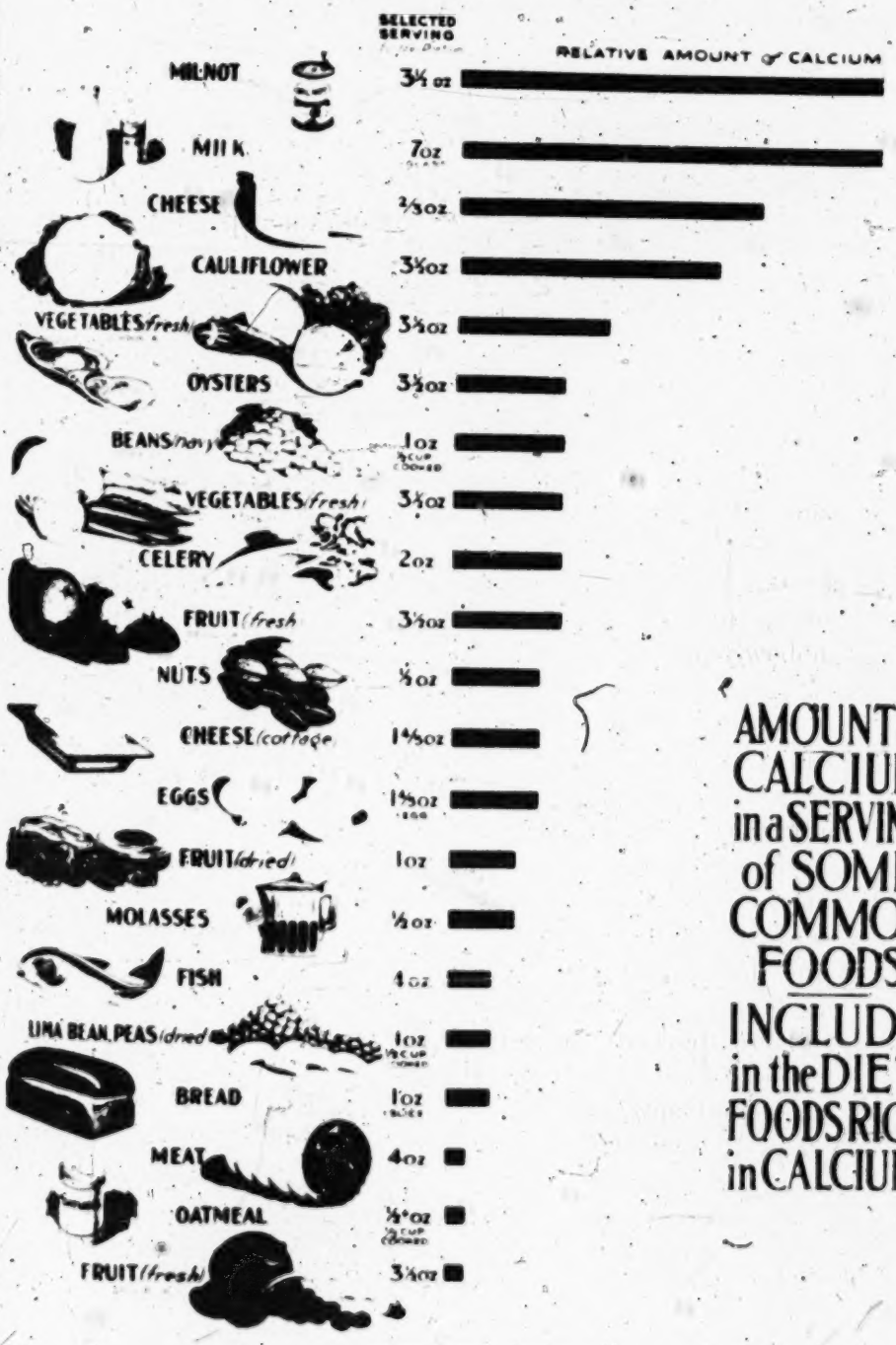


ENERGY VALUE of a SERVING of SOME COMMON FOODS

INCLUDE in the DIET FOODS FURNISHING FUEL for ENERGY

FOOD VALUES

CALCIUM

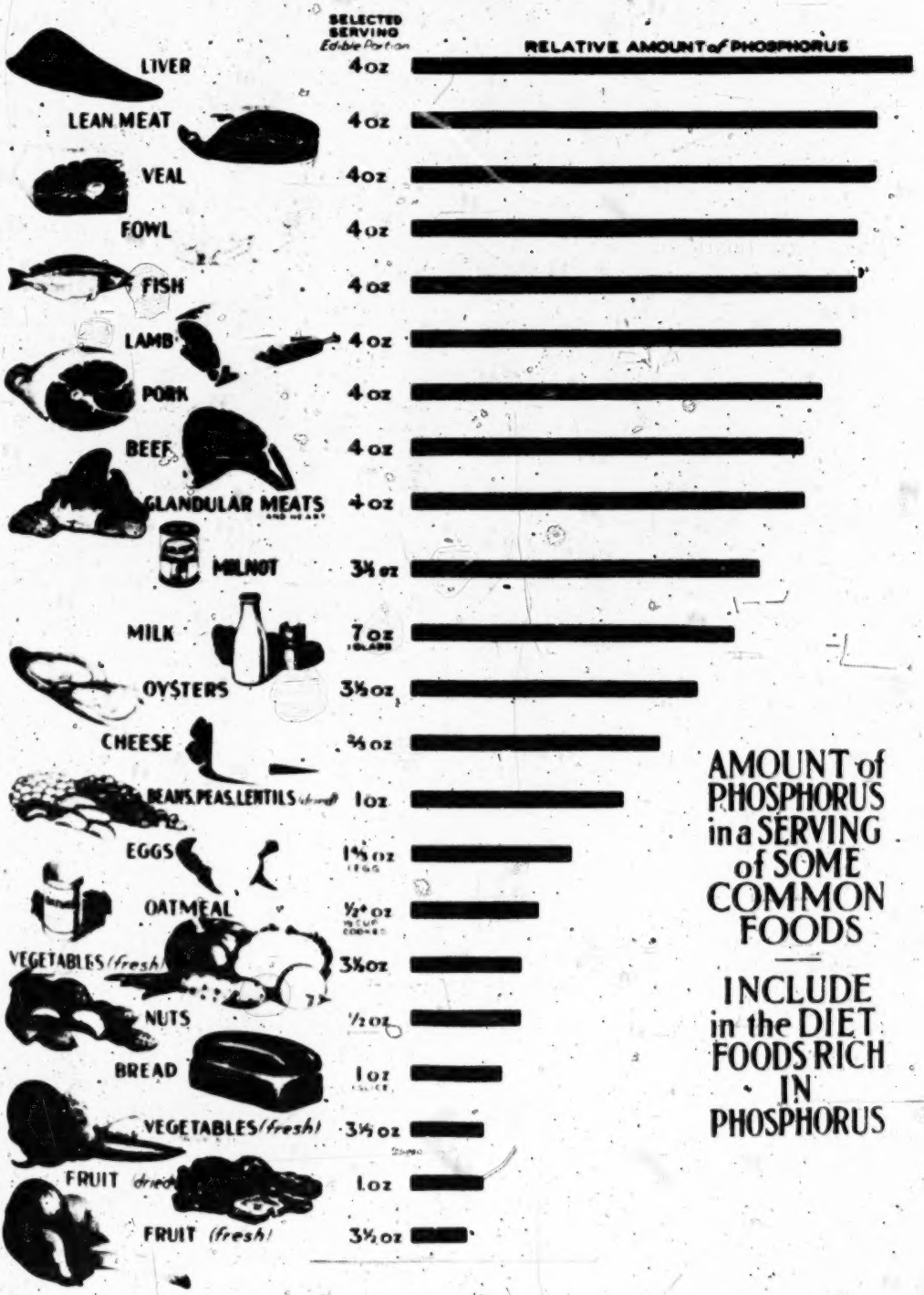


AMOUNT of CALCIUM in a SERVING of SOME COMMON FOODS

INCLUDE in the DIET FOODS RICH in CALCIUM

FOOD VALUES

PHOSPHORUS

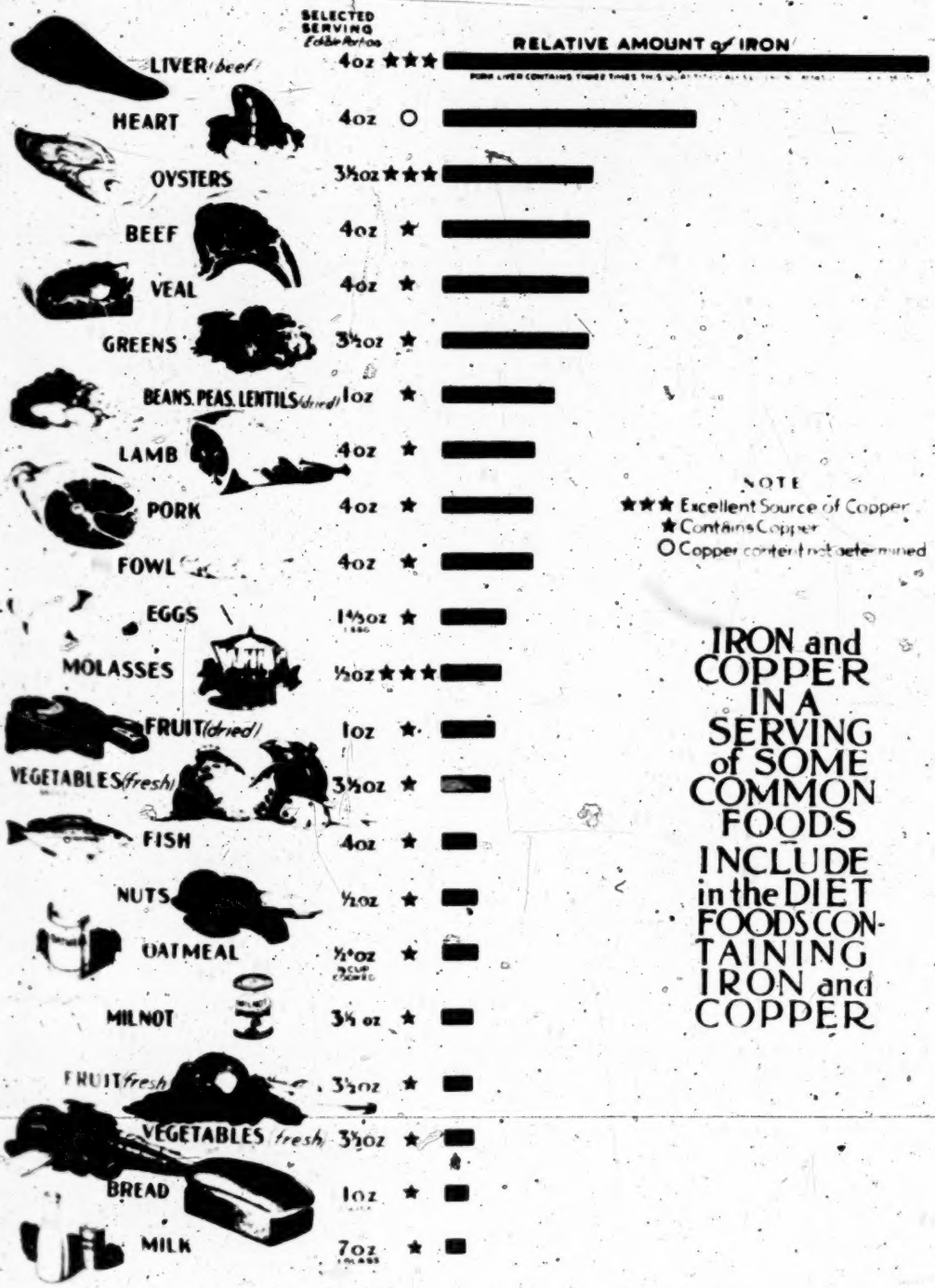


AMOUNT of PHOSPHORUS in a SERVING of SOME COMMON FOODS

INCLUDE in the DIET FOODS RICH IN PHOSPHORUS

FOOD VALUES

IRON and COPPER



NOTE
★★★ Excellent Source of Copper
★ Contains Copper
○ Copper content not determined

IRON and COPPER IN A SERVING of SOME COMMON FOODS INCLUDE in the DIET FOODS CONTAINING IRON and COPPER

FOOD VALUES

VITAMINS

Common Foods as Sources of Vitamins

SELECTED SERVING (Edible Portion)	A	B			C†	D
		Thiamine (1)	Riboflavin (2)	Nicotinic Acid		
4oz	6885	389	3343	35.5	*	35
4oz	*	659	1980	7.8		
4oz	743	515	2603	19.8		
4oz	*	373	907	3.7		
4oz	*	280	439	9.0		
4oz	67	227	294	8.4	*	
4oz	*	337	397			
4oz	*	310	414	16.2		
4oz	*	1602	344	11.0		
4oz	*	164	166			
3½oz	150	225				5
1/2179	4440				0	629
1⅝oz (1 egg)	375	44	177	3.3	0	8
7oz	248	82	382	1.0	2.5	4
3½oz	114-433	53	298	0.22		116-96
3½oz	482-576	55	352	0.22		96-116
½oz	231	0			0	11
1oz	*	120	36			
⅔oz	375	8	120			
½oz	0	131			0	
3½oz	60	28	71		4.5	
3½oz	50	76	113		41.3	
3½oz	206	46	105		8.5	
3½oz	0	51	120		32.8	
1oz	563	54	234		1.2	
3½oz	18750	82	393		50.0	
3½oz	30	116	72		9.8	
3½oz	1125	52	48		22.5	
3½oz	750	420	300		17.5	
3½oz	3188	66	153		3.3	
3½oz	38	168	180		28.8	

The Essentials of an Adequate Diet

PROTEIN—builds and repairs body tissues

CALORIES—furnish heat and energy

MINERALS—build and maintain the body and regulate its functions

CALCIUM—builds and maintains strong bones and teeth and regulates body processes

PHOSPHORUS—builds and maintains strong bones and teeth and normal body tissues

IRON—builds blood and protects against nutritional anemia

COPPER—aids in utilization of iron by the body

TRACE ELEMENTS (minerals in minute quantities)—aid in various body functions

VITAMINS—promote growth and maintain health

VITAMIN A—aids in normal functioning of the eyes and increases body resistance

THIAMINE (B_1)—stimulates appetite, prevents beriberi, aids in utilization of carbohydrates, and promotes the health of the body cells

RIBOFLAVIN (B_2 or G)—is necessary for cell oxidation and protects against nervous disorders and liver disturbances

NICOTINIC ACID—prevents and cures pellagra

VITAMIN C—prevents and cures scurvy and aids in the maintenance of healthy body tissues

VITAMIN D—aids in utilization of calcium and phosphorus for the prevention and cure of rickets

BULK—aids in the elimination of body waste

[fol. 330] DEFENDANTS' EXHIBIT 23-B (for identification)

Filled Milk

Hearings Before the Committee on Agriculture, U. S. Congress, House of Representatives, Sixty-seventh Congress, First Session, on H. R. 6215, by Mr. Voight. June 13, July 6, 7, 19, and 20, 1921. Series H

[fol. 331] Committee on Agriculture, House of Representatives, Sixty-seventh Congress, First Session

Gilbert N. Haugn, Iowa, Chairman; James C. McLaughlin, Michigan; Charles B. Ward, New York; Fred S. Purnell, Indiana; Edward Voigt, Wisconsin; M. O. McLaughlin, Nebraska; Carl W. Riddick, Montana; J. N. Tincher, Kansas; T. S. Williams, Illinois; J. H. Sinclair, North Dakota; Edw. D. Hays, Missouri; Charles J. Thompson, Ohio; Fred B. Gernerd, Pennsylvania; Frank Clague, Minnesota; John D. Clarke, New York; J. Kuhio Kalanianaole, Hawaii; H. M. Jacoway, Arkansas; John W. Rainey, Illinois; James B. Aswell, Louisiana; David H. Kincheloe, Kentucky; Marvin Jones, Texas; Peter G. Ten Eyck, New York; L. G. Haugen, Clerk

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[fol. 332]

FILLED MILK

Committee on Agriculture,
House of Representatives,
Monday, June 13, 1921.

The committee met at 10 o'clock a. m., Hon. Gilbert N. Haugen (chairman) presiding:

There were present Mr. Haugen, Mr. McLaughlin of Michigan, Mr. Ward, Mr. Purnell, Mr. Voigt, Mr. McLaughlin of Nebraska, Mr. Tincher, Mr. Williams, Mr. Sinclair, Mr. Hays, Mr. Thompson, Mr. Clague, Mr. Clarke,

Mr. Jacoway, Mr. Rainey, Mr. Aswell, Mr. Kincheloe, Mr. Jones, and Mr. Ten Eyck.

The Chairman: The committee has met this morning to consider H. R. 6215, a bill to amend an act for preventing the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines, and liquors, and for regulating traffic therein, and for other purposes, approved June 30, 1916, as amended.

Mr. Voigt, can you arrange the program for the day?

Mr. Voigt: Mr. Chairman, I want to take up just as little time as possible in presenting this matter to the committee. I think we can get through with our side in about an hour and a half, and I would like to see the time, of course, equally divided between those who are favorable to the bill and those who are opposed to it.

Mr. Aswell: Who represents the opposition?

Mr. Voigt: I am not familiar with that. Are there some gentlemen here opposed to this bill?

Mr. Aswell: Who represents the opposition to this bill?

Mr. McKee: I represent the Carnation Milk Products Co., a company which has been engaged in the handling of milk products for a number of years. We had no notice of a hearing on this bill until Friday and then we got it indirectly, and we have not had time to prepare for the hearing. There are a number of scientific and legal questions involved in the matter and we have a very large amount of money invested in the business and would like to have an opportunity to be heard when we have had sufficient time to prepare for the hearing.

Mr. Aswell: How much time would you want and when would you want it? Are you prepared to go on to-day?

Mr. McKee: No, sir, I am not. I did not get here until yesterday and had no notice of the hearing until Friday.

Mr. Aswell: Have you conferred with other parties interested in the proposition?

Mr. McKee: I have, since I got here, by wire. I know there are at least 10 people interested in the industry who know nothing at all about this hearing whatever, and I do not believe they have had a copy of the bill.

[fol. 333] Mr. Davis: Mr. Chairman, I represent the Nutro Butter Co., refiners of coconut oil and manufacturers of nut margarine. About two weeks ago I addressed a letter to this committee asking to be advised of any food bills

that were pending. The letter, in the usual course, was referred to the Superintendent of Documents, and I received copies of two measures—not, however, this one. Through the courtesy of this committee I received a card on Friday last, that a hearing was set for to-morrow on the cold-storage bill and for to-day on the filled-milk bill. I telephoned your office Friday afternoon and you were good enough to send me a copy of the filled-milk bill, which I got about 11 o'clock Saturday morning. That was our first knowledge that a bill of this kind was pending. The measure before this committee is substantially the same as the one that was brought up, I believe, by various gentlemen before various State legislatures during the last winter. We were able to prepare for those hearings, and we think we made a fair case before the committees of the various State legislatures before whom these various measures were pending.

Mr. Tincher: Were you organized in that fight?

Mr. Davis: Yes, sir.

Mr. Tincher: Then, it is not a new fight and you have had to meet the same issue before the State legislatures?

Mr. Davis: Yes, sir.

Mr. Tincher: Then, it would not take you long to get prepared for a hearing?

Mr. Voigt: Mr. Chairman, I want to say that this is nothing new to these gentlemen. They have been through four or five hearings that were identical with this one in the last six months.

Mr. Davis: Yes; but you can not prepare for a hearing like this between Saturday morning and Monday morning.

Mr. Aswell: It seems to me the situation in reference to this bill is exactly the same as the packer bill and the cold-storage bill and all that sort of thing. We gave all those other people hearings, and I do not see why we should not extend the same courtesy to these gentlemen.

Mr. Voigt: I want to extend every reasonable courtesy to these gentlemen, but the fact that this bill was made mention of in all the trade journals of the country——

Mr. Aswell (interposing): But the hearing was not set in the trade journals.

Mr. Voigt: I understand that; but these gentlemen knew the bill was pending, and if they are interested in their own line of business I think they might inquire as to when there would be a hearing on the bill.

Mr. Davis: We did inquire. I think I stated I did inquire, and in some way I was not informed, through the fault of nobody, and surely not through our own fault.

Mr. Tincher: Did you appear before the committees of the State legislatures?

Mr. Davis: Yes, sir.

Mr. Tincher: And you are here to-day?

Mr. Davis: Yes, I am.

The Chairman: You were notified about the hearing the day the hearing was fixed. A card was mailed you a week ago.

Mr. Davis: Yes; I mentioned that and stated that you were good enough to send me a notice which I got on Friday, and when you referred to the filled milk bill it was the first knowledge I had that any such bill was pending. I do read the trade journals, and I am frank to say that I have not seen any notice of this hearing or of the bill in any of the trade journals.

Mr. Voigt: You were notified of this hearing on Friday?

Mr. Davis: Yes; but I did not get a copy of the bill until Saturday.

Mr. Voigt: And you knew it was a filled milk bill?

Mr. Davis: Yes.

Mr. Voigt: And you knew it would be the same bill as the others?

Mr. Davis: No; I did not know that.

Mr. Voigt: You had good reason to believe that it was the same bill as all the other bills that you had attended hearings on?

Mr. Davis: I would not have telephoned in if I had not thought there was something in the air on which I should be posted, and I took the best way I could to find out, and that was to telephone in, which I did, and got a copy of the bill on Saturday.

Mr. Voigt: When you found out on Friday that this was a filled milk bill, you knew exactly what this bill was, because there is only one feature to such a bill, and that is to prevent the shipment or the manufacture of so-called filled milk.

Mr. Davis: It does happen sometimes that some of us have something else to do, and I had something else to do on Friday. I do not think that a notice on Friday that a hearing is going to be held Monday morning is reasonable

notice of a hearing of this sort to insure adequate preparation. Now, you all are here with your experts, and you must have known before Friday or you would not all be here. We ought to have the same reasonable opportunity to prepare for this hearing. We have good reasons to offer why this measure should not be enacted into law. We have the same good reasons that we presented at previous hearings.

The Chairman: The clerk informs me that the notice of the hearing was mailed to you on Monday, but that you have changed your address, and that is probably what caused the delay.

Mr. Davis: I would get it the same day, any how.

Mr. Aswell: It was mailed Monday, because I called up the clerk of the committee on Monday morning myself and asked him to notify you.

Mr. Davis: The fact I changed my address does not prevent me from getting my mail in New York on the very same day that I would have received it anyway.

The Chairman: But you did not get it until Friday? It was mailed Monday.

Mr. Davis: I did not get the notice until Friday.

The Chairman: But the notice was sent out on Monday.

Mr. Tincher: I suggest we go on with the hearing. These gentlemen are here, and if they can demonstrate to the committee later on that they need some more time to present something, this committee is always willing to hear them, but there is no reason why we should stop the hearing this morning. These men who are here have come a long way, and we can hear as much of the testimony as we can, and then the committee can decide later whether we will prolong the hearing in order to hear some one else.

[fol. 334] Mr. Voigt: This gentleman has made an argument against this kind of a bill four or five times and he can make that argument this minute just as well as he has made it in the past. You know just what your opposition is to this bill.

Mr. Davis: I am just a plain, ordinary lawyer.

Mr. Voigt: And you have been through this fight a number of times and you are prepared to make the same argument here that you have made in other places, and I do not see why you are not ready to go on now.

Mr. Davis: You thought it advisable to bring some people here who are specially qualified in the scientific aspect of this measure, and I think we ought to have that opportunity, too. You do not want any measure enacted that will prevent us from presenting our case.

The Chairman: How many are there present in opposition to the bill? Mr. Abbott, how about you?

Mr. Abbott: Mr. Chairman, it appears to me from looking over this bill that it would prohibit the manufacture and sale of oleomargarine, and if so, we are interested, of course, in the bill.

Mr. Voigt: In order that there will not be any time consumed on that matter, let me say that it is not the intention of this bill to interfere with oleomargarine. I do not think it does, but if you claim it does I am willing to have the bill redrafted so as to leave out the question of oleomargarine. So I think it is safe to say now that you are not interested in this hearing.

Mr. Abbott: Of course, we are glad to hear you say that, and on that basis we have nothing to say; but the bill does prevent the mixing or blending or compounding of milk, skimmed milk, etc., with fats and oils other than butter fats. We make our product exactly by mixing, compounding, and blending those fats and oils with skimmed milk or with milk.

Mr. Voigt: Yes; but the bill, of course, refers only to milk in various forms and does not refer to oleomargarine. As I say, if the committee should act favorably on the bill, I should be very glad to have the bill rewritten in any shape or manner in order to meet your objections.

The Chairman: Now, what is the request of those who are here in opposition to the bill?

Mr. Davis: Our request, sir, is that this hearing be adjourned, not for a long time, but just such reasonable time as will give us an opportunity to prepare for this hearing just as we had an opportunity to prepare for these other hearings.

Mr. Tincher: I suggest, Mr. Chairman, that we go ahead with the hearings on the bill.

Mr. Aswell: Mr. Chairman, I would like to ask a question. How much time do you think you will need to prepare?

Mr. Davis: I should say about two weeks.

Mr. Voigt: Before this question is acted upon I would like to ask the gentleman whom he intends to bring before this committee?

Mr. Aswell: And how many interests are represented?

Mr. Voigt: I do not mean to ask you to name them, but state in a general way who they will be.

Mr. Davis: I should say we would have substantially the same people who were present at the Harrisburg hearing before the committee which I think was called the "Committee on Health and Public Welfare of the Senate." We had perhaps 8 or 10 people, not particularly ours, because I was the only person representing my company.

Mr. Aswell: How many interests were represented?

Mr. Davis: I should say there were five or six different businesses represented. I do not remember exactly. We had an expert, perhaps, of equal standing with Prof. McCullom, who is here, and we ought to have somebody who is able to present our side of the case on the scientific end. We also had several people who are interested on the consuming end, and I think we ought to be able to have such persons here.

Mr. Tincher: Is there a conflict among the scientists on this bill; that is, does some one dispute the testimony of Prof. McCullom?

Mr. Davis: There is the normal state of affairs existing on this scientific problem, as there is probably on others.

Mr. Clarke: What is the position of Prof. Mendel, of Yale, on this question?

Mr. Davis: I think he is rather favorably inclined to the value of coconut oil, and I should say that if Prof. Mendel was called, judging from what I have heard and read, he would oppose this bill, and I think that perhaps Prof. Mendel ranks possibly with Prof. McCullom.

Mr. Aswell: Are there not some other gentlemen before the committee for a hearing on some other subjects?

Mr. Tincher: This particular matter was set for today.

The Chairman: If there are, I am not aware of it.

Mr. Aswell: What do these other gentlemen represent?

Mr. Holman: Mr. Chairman, our people received the same notice that the gentlemen of the opposition received and had no more time than they have had. We have come, some of us, from long distances here and we are ready to appear in favor of the legislation.

Mr. Clarke: When did you receive your notices?

Mr. Holman: We received our notices at the same time.

Mr. Aswell: What day?

Mr. Holman: Last week, but it was sent out, I believe, last Monday, and I think we got them about Tuesday. The United States mail carried it to us just as it did to the gentlemen of the opposition.

The Chairman: The motion before the committee is that we proceed to hear the witnesses who are here, and, without objection, it will be so ordered. The committee will be glad to hear from you, Mr. Voigt.

Statement of Hon. Edward Voigt, a Representative in Congress from the State of Wisconsin

Mr. Voigt: Mr. Chairman and gentlemen, I want to take a little time in making a preliminary statement. The bill which I have introduced proposes an amendment to the pure food and drugs act in order to prevent the interstate shipment of so-called filled milk. There has grown up in this country during the last four or five years an industry which is growing at an alarming rate in adulterating the milk supply of the country, and I think it is a real danger to the people of this country. This business has grown in a few [fol. 335] years 5,000 per cent; that is, it has grown in five years to be a menace to the milk supply, in my judgment, of the country, and if it keeps on in a few years the bulk of the canned milk that will be sold in this country will be the so-called filled milk.

The so-called filled milk which is sold under various trade names is skimmed milk mixed with coconut oil, and if it is set before you on the table you can not tell the difference between that article and ordinary condensed or evaporated milk.

The bill I have introduced is H. R. 6215. It seeks to amend the pure food and drugs act by amending section 7 by adding a paragraph. Section 7 specifies what shall constitute an adulterated food product, and my amendment is in the following language:

Third. If in the case of milk, cream, skimmed, condensed, evaporated, concentrated, powdered, dried or desiccated milk, there has been added to the same, or the same has been blended or compounded with any fats or oils other than milk fats.

Mr. Aswell: How much cheaper is it than the ordinary milk?

Mr. Voigt: The difference in the cost is the difference in the cost practically between the butter fat and an equal quantity of coconut oil, which is very considerable.

Mr. Aswell: Have you any idea as to how many cents the difference is?

Mr. Voigt: I can not give you that cost. I can tell you how the milk is sold in the stores; it is 2 or 3 cents a can cheaper than an equal size can of regular condensed or evaporated milk.

Mr. Jones: Is there any considerable difference in the nutritive value of the two articles?

Mr. Voigt: Yes, sir. I shall have Dr. McCullom here from Johns Hopkins University, who has made a special study of nutrition. I will simply say to you that the so-called filled milk has none of the vitamins that are contained in milk. You can feed this filled milk to an infant or child and there is absolutely no principle in it that will contribute to the growth of the child. I think that is the most serious objection to the filled milk.

Mr. Aswell: Mr. Voigt, I have great respect for your judgment, but I will expect you to prove that, because I do not agree with you on that question. I think you are mistaken about that.

Mr. Voigt: I do not admit that I am mistaken. I think Dr. McCullom will satisfy the committee on that proposition. It has some nutritive value, of course. It has value as an energy builder, but it has nothing in it which contributes to the growth of the human being, and especially of children and infants.

It will be claimed that this filled milk is properly labeled, but the trouble with it is that this filled milk is used by a lot of ignorant people to whom a label means nothing, and you can not protect the public with a label when this sort of stuff finds its way into a household where they pay no attention to a label; and if it is served to you in a hotel or in a boarding house, you do not know what the stuff is that you are consuming. This product, I understand, is also being used to some extent in the manufacture of ice cream, and the consumer thinks he is getting some cream, at least, in his ice cream, when as a matter of fact he is getting no cream whatever.

Mr. Clarke: Mr. Voigt, is this product used to a considerable extent in the feeding of infants?

Mr. Voigt: I think there is some proof to show that people do use it for infants; in fact, storekeepers have recommended it as being very good for infants, and some of the gentlemen who will appear for the bill will go into that question to show you in what quarters of the big cities this article is mostly consumed; and wherever a census has been taken in the large cities, in all parts of the country, it has been found that in the poorer quarters, where the people could not read, and among the foreigners, they were buying this product and assuming they were buying milk.

Mr. Ten Eyck: Does this product sour the same as other milk?

Mr. Voigt: I can not answer that question. Does it, Dr. McCullom?

Dr. McCullom: I did not get that question.

Mr. Ten Eyck: Does it sour the same as other milk?

Dr. McCullom: Any milk that has been sterilized does not sour as ordinary milk sours. The souring of milk is due to the growth of the lactic acid producing organism and that, of course, is destroyed in the process of sterilization.

Mr. Ten Eyck: Then it is like condensed milk in that respect?

Dr. McCullom: Yes.

Mr. Voigt: I have some figures here that were given me by the Bureau of Markets showing the manufacture of this article during the last few years, and I shall put them in the record. It shows the enormous growth of this industry.

Annual production of certain dairy products.

	1920	1919	1918	1917
Evaporated, part or full skimmed, modified with foreign fat (case goods)	84,044,000	62,262,225	50,619,163	30,483,262
Evaporated, part or full skimmed, modified with foreign fat (bulk goods)	2,517,000	2,748,120	3,861,097	4,544,640

Mr. Jones: Mr. Voigt, has the department taken any action or made any recommendation in this matter?

Mr. Voigt: I sent a copy of the bill to the department and asked them for their opinion on it, and I understand their opinion will be here this morning.

Under the present wording of the pure food law this article can not be sold as milk. I want you to get that point, gentlemen. I say that under the present wording of the pure food law this compound can not be sold as milk.

Will one of you gentlemen produce the exhibit that you have here, please? This compound is being sold under certain trade names and we have a number of cans here showing the different names. For instance, you will notice that here is a can of it that is called "Silver Key," but it does not say it is milk. Here is another can that is labeled "Hebe." It does not say it is milk because under the pure food law the manufacturers of this article can not call it milk. Here is another can labeled "Nutro."

Now, here is where the fraud comes in partially. This article is sold under a trade name. There is no can that is labeled milk, but the grocer sells it as milk. I have seen [fol. 336] advertisements in the local Washington papers myself. Here [indicating] are two products put out by the same concern. This one is real condensed milk. You will notice that one is labeled "Golden Key Milk" and here is the same size can which is called "Silver Key," and is the substitute, but not labeled milk.

Mr. Aswell: Do you know the difference in the price of those two cans?

Mr. Miller: They are sold for the same price, 10 cents apiece.

Mr. Voigt: I could not say anything in regard to the wholesale price of those articles.

Mr. Aswell: That gentleman says that the retail price is the same. If that be true, where is there any fraud in that?

Mr. Voigt: Of course, the price at which the thing is sold, in itself, would not be any evidence of fraud. If it is a fact that these two cans are sold at the same price, the fraud on the consumer comes in buying the Silver Key, which is the substitute, because the consumer is not nearly getting the value for his money that he would get if he bought Golden Key Milk, which is real milk. The fraud comes in the sale of this product by the retail dealer. The retail dealer advertises this product, and you will find advertisements from time to time in the Washington papers. The retail dealer sells it as milk. For instance, one of the big stores here some time ago advertised "Hebe milk." Now then, you go into a grocery store and ask for a can of condensed milk, and if the grocer thinks you do not know the difference, he will hand you one of these brands.

Mr. Clarke: What is the difference in the cost to the grocer?

Mr. Voigt: I do not know as to the cost to the grocer, but I suspect that the grocer makes a larger profit on the substitute than he does on the real milk.

Mr. McKee: The price is $5 for evaporated milk and $3.60 for the compound, a difference of $1.40, making a difference of about 2¾ cents a can.

Mr. Voigt: That bears out the suspicion I have had that the retailer can buy this compound for considerably less than he can buy the real article, and naturally he is human and he hands this substitute to the purchaser whenever he can.

Mr. Aswell: May I interrupt you just there? You stated that these cans were priced the same—10 cents. Is it true that the price generally to the retail trade is the same as condensed milk?

Mr. McKee: You mean from the manufacturer?

Mr. Aswell: Yes. I want to know whether it is a fact that the retailer generally pays the same price that he does for the pure milk?

Mr. McKee: No; the differential is usually from 2½ to 3½ cents a can, depending upon the particular market. At this particular stage the differential has not amounted to as much because the retailers have overstocked at high prices and are trying to get their money out of it.

Mr. Voigt: There has been legislation along this identical line in other States. I understand that the States of Maryland and California have laws which forbid the manufacture of this article. My State of Wisconsin two or three days ago passed such a law; that is, both branches of the legislature passed it, and I want to say to you gentlemen that in the Wisconsin Assembly there were only 10 votes against a bill prohibiting the manufacture of this article, and I am informed it passed by a unanimous vote on a roll-call in the senate, and I have no doubt whatever that the governor will sign the bill.

Mr. Aswell: Mr. Voight, may I interrupt you there?

Mr. Voigt: Yes, sir.

Mr. Aswell: Is it not also true that in the State of Wisconsin there is no vegetable oil at all produced?

Mr. Voigt: That is true.

Mr. Aswell: Then that makes a vast difference.

Mr. Voigt: I do not conceal the proposition at all that the State of Wisconsin is one of the leading dairying States of the country.

Mr. Aswell: Certainly.

Mr. Voigt (continuing). And the people of Wisconsin are opposed to this compound for various reasons, and one of them is that they want to protect the dairying interests of Wisconsin.

Mr. Miller: Hebe is made in Wisconsin.

Mr. Voigt: Yes; but that was not the gentleman's question. The gentleman wanted to know whether any vegetable oils were produced in Wisconsin, and I said no. Some of the imitations are produced in the State of Wisconsin and are produced in my district. That does not interfere with my judgment about the perniciousness of this substitute.

Mr. Jones: Would the effect of your bill be to forbid the transportation of these articles in interstate transportation?

Mr. Voigt: That is the object, yes, sir. It is an amendment to the pure food and drugs act and if the amendment is made effective it would prevent the manufacture in the District of Columbia and the Territories and insular possessions of the United States, and to prevent the interstate shipment in any place subject to the jurisdiction of the United States.

Mr. Ten Eyck: In other words, what you want to do is to get rid of the manufacture or use of it in any manner, shape, or form; not re-mark it or arrange to have it labeled so that the people would know what they are purchasing, but you want to stop the manufacture and use of it?

Mr. Voigt: I want to stop the manufacture and the sale of this article so far as it can be done by this form of bill. This bill would not prevent the manufacture and sale of it within the limits of a State. It would prevent, however, the shipment of the article out of the State.

It goes without saying that the manufacture of this substitute is an injury to the dairying interests of the country. It is putting the dairy farmer of the United States into competition with coolie labor, because the coconut oil is produced by cheap labor elsewhere; but the point is that the sale of this article is, in effect, a fraud on the purchaser, and you cannot devise a label which will prevent that fraud.

A bill suppressing the manufacture of this article was passed by the Legislature of New Jersey, but Gov. Edwards, of New Jersey, pocketed the bill, so that it did not become a law.

The sale of this article has been prohibited by the health department of the city of New York.

The Assembly of Pennsylvania passed a bill to this effect but it died in a committee of the Senate.

[fol. 337] Mr. Aswell: May I interrupt you there? Are you sure that the health department of the city of New York has prohibited the sale of this article?

Mr. Voigt: Yes.

Mr. Balderston: Only the bulk compound.

Mr. Voigt: Then I am mistaken about that. I knew an order relative to this compound had been made by the city of New York and I understood it prohibited its use entirely. I will read the resolution. This was adopted on the 24th of March, 1921, at a meeting of the board of health of the department of health of the city of New York:

SECTION 179. *Prohibiting the manufacture, sale, and distribution of imitation milk and cream.*—No person shall sell, or exchange, or offer or expose for sale or exchange, any substance in imitation or semblance of milk or cream which is not milk or cream, nor sell, or exchange, or offer or expose for sale or exchange, any such substance as and for milk or cream, or sell, or exchange or offer or expose for sale, or exchange, any article of food made from such milk or cream, or manufacture from any such milk or cream any article or food.

Now, that seems to bear out what I said, that the sale of this article is prohibited entirely in the city of New York.

Mr. Aswell: Would it interrupt you if I read you what the health commissioner himself has said? This is from Dr. Copeland, health commissioner of New York, addressed to the Senate Committee on Agriculture, dated April 6, 1921. This is his statement:

I have just learned that I am quoted by the proponents of Senate bill 925, now before your committee as being in favor of the bill as it is now being interpreted. I wish to make my position in this matter clear. I am not opposed to the sale of wholesome compounds composed of skimmed milk and coconut fat when sold in hermetically sealed consumer-size cans and properly labeled as to contents and uses so that the public may know what it is buying. What I am opposed to is the sale of such products in bulk form, or in large open containers similar to the ordinary milk

can, where it is impossible for the consumer to know what he is buying and where such products may be sold for and used in the manufacture of ice cream and as substitutes for real cream. When the label gives a trade name and distinctly states what the can contains and when the product is sold in a sealed can of individual size, not to exceed 1 or 2 pounds in weight, I can see no objections to the manufacture and sale.

Mr. Voigt: That is the expression of one man.

Mr. Aswell: He is the health commissioner of New York.

Mr. Voigt: I think that the resolution adopted by the board of health certainly bears out the contention that the sale of this article, no matter in what form, has been prohibited in the city of New York. Now, I have here a letter from this same Dr. Copeland, written March 19, 1921, and I take it he is the chief health officer of the city of New York.

Mr. Aswell: Yes; he is the same man.

Mr. Voigt: In that letter he makes this statement:

I wish to inform you that the department of health of the city of New York is vigorously opposed to the substitution of coconut oil for butter fat.

He does not say he is in favor of its being sold. He says he is opposed to the substitution of coconut oil for butter fat. He says:

It (department of health) takes this position for the reason that coconut oil does not possess the food value that butter fat possesses and the substitution of same for any milk product would undoubtedly be reflected in the health of the children of this city. Coconut oil is no substitute for milk. Coconut oil does not possess the same growing qualities found in the butter fat of milk and any legislation which would permit the addition of coconut oil to any milk product would be opposed to the best interests of the people of the city. * * *

The board of health of this city has adopted a standard for ice cream in which the use of coconut oil or vegetable fats are prohibited.

Mr. Ten Eyck: Have you any information with regard to the chemical and physical comparison of butter fat and coconut oil?

Mr. Voight: I have the best expert in the country here on that question.

Mr. Ten Eyck: I think that is what we ought to know about, because the content of protein and that sort of thing is really the whole basis of the argument.

Mr. Voigt: I will have that gentleman address you in just a moment. I would like to talk for a while longer, but Mr. Chairman, I will ask leave to extend my remarks on this subject, because I have some material here that I do not want to take your time to read.

The Chairman: Without objection it will be so ordered.

Mr. Jacoway: Mr. Voigt, I would like to ask you some questions, if I may.

Mr. Voigt: Certainly.

Mr. Jacoway: I will be just as brief as I possibly can. Your bill seeks to amend the pure-food law?

Mr. Voigt: Yes, sir.

Mr. Jacoway: I will ask you whether the products in these cans that we have here contain any element of food that is poisonous or deleterious?

Mr. Voigt: I will say to you gentlemen that there is nothing poisonous or deleterious in this milk compound. I will say in further I do not object to what this compound contains so much as I object to what it does not contain. The fact that this article is not deleterious or is not poisonous does not meet the argument. You can mix milk with water and there is nothing injurious or poisonous about it, but it is considered everywhere in the country that that is a fraud on the consumer.

Mr. Jacoway: Then I will ask you whether there is any food value in any of these products in the cans exhibited here or whether the food value of them is nil?

Mr. Voigt: This substitute does have a food value but the main defect in it is that it has not the food value which is necessary for the growth of children and infants.

Mr. Jacoway: Then is the trouble in the misbranding of the article or just what is the trouble?

Mr. Voigt: The trouble is that this article is sold for milk and is used for milk, when it does not have the same nutritive elements that milk has, and it is sold notwithstanding the label in such a way as to perpetrate a fraud on the consumers of the country.

Mr. Ten Eyck: Will this substance in liquid form or in bulk give the same specific gravity as milk for testing purposes, do you know?

Mr. Voigt: I can not answer that. Dr. McCullom, can you answer that question?

Mr. McCullom: It has essentially the same density as ordinary milk.

Mr. Ten Eyck: In other words, you can fix this liquid up so that it will give the same specific gravity as real milk and have it come within the law of the States?

[fol. 338] Dr. McCullom: The specific gravity would not be a test that would be adequate for determining whether this product is milk or whether it is an imitation of milk.

Mr. Ten Eyck: You do not understand me. In the State of New York we have a pure food law which provides that when milk is sold in bulk, a man can jump on a milk wagon and take a sample, test it, and the specific gravity is one of the tests. Would the conversion of this into liquid milk give the same specific gravity as real milk? Can they bring it up to that point?

Dr. McCullom: So far as all the physical properties go it is a very close imitation of natural milk, evaporated and canned; a very close imitation.

Mr. Ten Eyck: But answer me that one question, please. Can they obtain the same specific gravity?

Dr. McCullom: Oh, yes, indeed.

Mr. Voigt: It is not a question of specific gravity. It is a question of the milk fat content. You see in this substitute there is no butter fat nor milk fat, either.

Mr. Ten Eyck: Specific gravity has a lot to do with it when it is one of the tests to determine whether you are getting a proper milk.

Mr. Miller: That covers the water content.

Mr. Ten Eyck: Yes; but that is one of the tests.

Mr. Jones: That might be important in making it appear the same as milk, but it would have nothing to do with its nutritive value.

Mr. Voigt: I want to read a part of a resolution adopted by the National Milk Marketing Conference called by the American Farm Bureau Federation in Chicago on May 3 and 4, 1921. Here is what they say:

In recent years a compound made of condensed skim milk and coconut oil has been placed upon the market. The

manufacturers of this product, commonly known as filled milk, claim that it provides a market for skim milk. This claim is not well taken, for instead of providing a market for skim milk it destroys a market for butter fat. In 1920, 7,000,000 pounds of coconut oil were used in the manufacture of filled milk, and as a result a market for 7,000,000 pounds of butter fat was destroyed and 8,000,000 pounds more butter was placed upon the market. In other words, the "coconut cow of the South Sea Islands" replaced 40,000 cows owned by American dairymen and the price paid for the skim milk to make this compound was not equal to what the live stock of the farm would return for it.

Moreover, this compound is sold as milk, and when sold as such is a counterfeit. A fraud is perpetuated upon the consumer. It does not contain the nourishing properties of milk, which is the fundamental food of this Nation, and no produce has a right to so imitate it that the consumer is likely to be deceived. The dairy industry must be protected from this counterfeit and the consumer from deception: Therefore, be it

Resolved. That legislation be enacted to prevent the manufacture and sale of a compound of milk, skim milk, and vegetable oils for human consumption.

Now, I want to say also that the reputable ice-cream manufactures of this country are opposed to using this substitute. I have here an article from a trade journal of the Ice Cream Association, the Pacific Dairy Review, and what I am about to read is an extract from the issue of June 2, 1921. In part they say:

There are a number of firms throughout the country soliciting business from ice-cream manufacturers on milk substitutes, and rumors occasionally develop to the effect that here and there an ice-cream manufacturer is using such substitutes.

We therefore take this occasion to reiterate what has been stated in former bulletins—that is, that the National Association of Ice Cream Manufacturers is unalterably opposed to the use of substitutes of any kind for butter fat or other dairy products in ice cream.

Mr. Jones: If they sell that as ice cream, that could be reached in another way.

Mr. Voigt: That could be reached by State laws.

Mr. Jones: That could be reached by national laws if the ice cream is shipped in interstate commerce.

Mr. Voigt: If it is shipped in interstate commerce, yes.

Mr. Jones: Because that is a real deception of the article. They call it ice cream when it is not ice cream.

Mr. Voigt: You understand, gentlemen, that if the manufacture and shipment of this article is permitted, there is nothing to prevent a local ice-cream manufacturer from using it, and we all know that probably 90 per cent of all the ice cream that is used in the country is produced and consumed locally.

Mr. Jacoway: Mr. Voigt, you are familiar, I know, with the provisions of the slack filled bill which has passed through this committee and is now on the calendar.

Mr. Voigt: Yes, sir.

Mr. Jacoway: I would like to ask you if the same end you are attempting to reach here in your bill could not be reached in that way, and whether the wrongs you complain of could not be corrected under the provisions of that bill?

Mr. Voigt: I do not think so. I think the two subjects are not related. I think that if any action is to be taken to prevent the shipment of this compound, it should properly be done by an amendment to the pure food law.

One of the great dangers about this substitute, gentlemen, is this: We now export an enormous quantity of straight evaporated and condensed milk. That is a legitimate product. A good many years ago we had quite an export trade in cheese, and some manufacturers in this country made what is called filled cheese. It was a spurious cheese. That cheese was sent to Europe, and it spoiled the market for American cheese almost entirely, and the export market for American cheese is still suffering from the bad reputation it got at that time, and if this substitute is exported it is going to give the whole milk industry of this country a black eye and is going to injure the legitimate manufacturer.

Another thing I would like to mention is that there are probably seven or eight people in the country making this substitute. There are a great many concerns making honest evaporated and condensed milk. Those men can not compete with this article, and if a stop is not put to the manufacture and sale of this imitation we will find that all the manufacturers of condensed and evaporated milk in this country will be driven, as a matter of self-protection, to

making this substitute, and you are going to injure the entire milk industry of the country.

Mr. Chairman, for the calendar year 1919, we exported 850,865,414 pounds of condensed milk and for the calendar year 1920 we exported 414,250,021 pounds. This is a considerable business. If we do not take steps to prohibit the imitation article, and that article gets into the export trade, the same thing is going to happen to the condensed milk industry which happened to the cheese industry some years ago. Between 1881 and 1895, the United States lost its [fol. 339] export trade in cheese because there was manufactured and exported in this country an imitation article called filled cheese.

Oleomargarine Cheese

"Filled cheese," which is regarded as having so injuriously affected the cheese interests of this country within very recent years, and especially our foreign trade, is by no means a new article, although this is a comparatively new name.

Very soon after oleomargarine began to disturb the makers, merchants, and consumers of butter in America, oleo oil came into use in the manufacture of cheese.

As already stated, this oleo cheese, lard cheese, or filled cheese, comes into market under every name except its own. Its true character and designation are recognized only while in the hands of the manufacturers' agents, and when it moves from the principal distributing points the various brands upon it give ample evidence of the intent to deceive and defraud. Reputable merchants and exporters generally refuse to handle the article.

In the period from 1875 to 1880, we exported annually an average of 113,606,609 pounds of cheese, while in the period from 1891 to 1895, the average annual exports dropped to 75,977,115 pounds. Chief Alvord further says:

From the beginning of the century exports of cheese from this country increased year after year with no fluctuations of consequence until the maximum of 148,000,000 pounds was reached in 1881. Great Britain took nearly all these exports. At one time there were 40 foreign cheese buyers located in that city (New York). The past 15 years have brought great changes in these conditions and rela-

tions, all detrimental to the cheese interests of the United States * * *

Commenting on this, Chief Alvord says:

Chief among the causes of this unfortunate condition of the foreign trade of the United States are these: * * * (4) the exportation of so much low-grade cheese, or "Skims," and of adulterated goods, or "filled cheese," in defiance of the requirements of the British markets and the consequent degradation of a well-earned reputation.

Mr. Aswell: Mr. Chairman, may I read a short statement on this same subject before the doctor begins his statement? I want to read a statement from Prof. R. W. Washburn, of Minnesota College of Agriculture, quoted in Hoard's Dairyman, September 17, 1917:

Skim milk solids furnish the bone and muscle building substances so sorely needed by growing children, and should not be denied them. One hundred pounds of skim milk contains the food equivalent of 20 pounds of lean meat. Fresh meat is not fed to swine. Why should milk be? It is evident that if all the skim milk is needed to perpetuate the stock, the fat only being sold, the cow is essentially only a fat-making machine and not the high human food making efficiency commonly accredited to her. Therefore, dairy workers should either favor the use for human food of whole milk, skim milk, cheese, condensed milk, and milk powder, as well as of butter. Or else we, the believers in the dairy cow, should cease claiming for her such efficiency.

Mr. Voigt: You will notice that the gentleman does not advocate that a substitute be produced.

Mr. Aswell: Is not this milk powder you are talking about?

Mr. Voigt: No; that gentleman does not claim that a milk substitute be produced.

Mr. Aswell: He is talking about skimmed milk and that is what you use in this product.

Mr. Voigt: My bill does not prevent the manufacture of pure skimmed milk. I am trying to prevent the manufacture of this fraudulent substitute. This bill does not prevent the manufacture of dried or evaporated or condensed skimmed milk.

Mr. Jacoway: The point I have been getting at is this: Suppose these cans state frankly and boldly on their label and describe what the can contains—and Dr. Aswell says they do—and suppose there are some people who want this product, would you enact a law that would prohibit them from getting what they want, if it is not deleterious or poisonous?

Mr. Voigt: My idea is that the sale of that article should be prohibited, because while the label does state what the can contains, there is not one consumer in ten who will examine the label. You will notice all these cans—and we have a sample here of practically every kind manufactured—do not say that this is milk. It goes under a trade name, but the grocer does advertise it and sells it for milk, and there is where the fraud comes in. For instance, notice this can which is labeled "Nutro." Let me show you how they invite the public to buy this imitation and how they fool the public with the label. Here is what the label says:

Nutro is prepared in the rich dairying sections of Indiana and Wisconsin.

Now, they refer you to the rich dairying sections of the United States, but they do not emphasize the fact that they have taken the main, vital element out of the milk when they have prepared this substitute. Then they go on and say:

Is made from fresh, pure cow's milk, with butter fats extracted and refined coconut fats added.

There they use the words "fresh," "pure," "refined."

Mr. Aswell: That is true, is it not?

Mr. Voigt: That statement is literally true, but I do say that there is not one person in a thousand among the consuming public who would not be misled by that statement. He thinks he is getting some rich dairying article when he buys this can.

Mr. Aswell: But the label says that the butter fat has been extracted.

Mr. Voigt: Yes; it says so, but it introduces the subject by saying that this article is prepared in the rich dairying sections of Indiana and Wisconsin and is made from fresh, pure cow's milk. The label creates a false impression

because it is made from what is left after the great nutritive elements have been extracted from the milk.

I now want to call Dr. McCallom, of Johns Hopkins University, one of the leading experts of the country on the subject of nutrition.

Gentlemen, this is Dr. McCollum, of Johns Hopkins University. I will say for Dr. McCollum that he is considered one of the greatest authorities in the country, if not in the world, on the subject of nutrition.

Statement of Dr. E. V. McCollum, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, Md.

Dr. McCollum: Gentlemen of the committee: During the last ten or twelve years there has been more progress in learning the fundamental principles of human and animal nutrition than in all time that went before. Just as in the study of human physiology we have our illustrations of the fundamental principles largely derived from experiments on animals, the medical profession to-day stands more in debt to animal experimentation as a guide to the progress in that science than it does to any other one factor which has contributed to the study of medicine.

The same is true in relation to the fundamental principles of nutrition, which is a phase of physiology. I happen to be associated with the school of hygiene and public health of the Johns Hopkins University, and our sole interest there is to promote the public good so far as it concerns the health of this and other nations.

In approaching this problem, therefore, we must perforce gain our fundamental principles through animal experimentation. Having arrived at knowledge concerning animal nutrition, we then correlate it with human experience, with the experience of the medical man in the hospital and at the bedside, and see how it applies to human problems.

Now, gentlemen during the last 15 years I have confined my efforts solely to the study of nutrition problems. Everyone who is competent to speak on this subject is in accord with every statement which I have ever made. There will be here differences of opinion brought up between Dr. Mandel and myself. They have been brought up elsewhere and will be brought up here, but I feel confident that Dr. Mandel, if he were here and face to face with me, would not uphold

the statement that the telegram which will be read here to you would indicate. I have talked to Dr. Mandel on too many occasions to believe that he would do this. I think he is being misrepresented before this committee.

Gentlemen, what I want to say to you is this, that the nutrition investigations, practically all of which were done in America and in England, have shown the following things: We can not talk about calories and energy values any more as the fundamental principles in nutrition. They are just as fundamental as they ever were, but they are not the whole situation. We have learned things about diet which we did not suspect a few years ago, and one of those things relates to the fundamental importance of a proper adjustment of the mineral constituents of the diet.

Another thing of fundamental importance is the discovery and progress in the field of appreciation of three or four—I say guardedly that there may be a fourth, but we know there are three—substances now commonly known as vitamines which the diet must contain in order to promote satisfactory health in any animal or in any human being. This being the case, it behooves us to consider what foods contain these substances, the chemical influence of which we do not know but the physiological effects of the lack of which in the diet we fully understand, both from human experience and from animal experimentation. It behooves us to inquire where we can secure each of these three substances in satisfactory amounts.

All that, gentlemen, has come down to this, that there are only three kinds of diet which ever have succeeded in the satisfactory nutrition of men or animals. One of those does not concern us very much here, but for the sake of completeness I will mention it. That is the strictly carnivorous diet, the diet where one animal eats another or where man eats an animal. Some of the American Indians were carnivorous people. The Eskimos are carnivorous people. There are a few examples elsewhere but they form only small groups of the human family.

The second type of diet which succeeds is one which has long been common in the Orient, in Japan, China, the Malay Peninsula and parts of India. That is a diet which is much like the average diet of the American home except in one respect; that is, that they eat quantities of green leafy vegetables, of which we eat very small amounts. We do not like these things, we never have learned to like them,

and we are not likely to come to the unpalatable, unattractive diet which has been forced by poverty on millions of orientals.

I might say that this one outstanding feature of the diet of the oriental people, the consumption of enormous amounts of leafy vegetables, such as spinach, lettuce, cauliflower, Brussels sprouts, sweet potato leaf, vines, etc., is the factor which makes those people as successful as they are. But how successful are they? Look at the Chinaman who does your laundry and see what he is. Almost without exception he is an undersized individual. He is poorly developed physically. Look at the Japanese—a small and physically inferior people. The Japanese children born in California in the last 15 years are larger in both sexes and in all ages, notably larger, than are the children of Japanese born in Japan. Why? Just because the diet of America is a better diet than the diet of Japan.

The third type of diet which succeeds is the diet which in Europe, in America, and on the plains of Asia has been used from time immemorial. That is the diet consisting of cereals, tubers, legume seeds, and meats, along with liberal amounts of dairy products. The cook has in truth been the foster mother of the human race. The earliest developments of civilization, aggressiveness, and high mental attainments, were reached on the high pasture lands of Asia. It was around Mesopotamia, the nearly rainless plains of Mesopotamia, where Abraham and his nephew Lot on occasion of excessively dry years took their flocks and herds and went to the better watered regions of Palestine. There was a great race that grew up from a primitive condition, and on a diet which was largely sour milk. The preeminent feature in their diet was sour milk.

The Mongol hordes, who, under Ghengis Khan, spread out from those high pasture lands, the steppes of Asia, were again a pastoral people. They had the physical powers, they had the aggressiveness, and the warlike propensities to make them conquer in every direction the peoples around them who lived on less satisfactory diets. And who were those people? Mostly they were living on agricultural products and meats.

Now gentlemen, look at what exists to-day. There are no finer people anywhere in the world than the Arabs, the Bedouins of Arabia, the tribes of the Sahara, who are all

milk drinkers. The finest people in Europe are the people of Rumania, Bulgaria and the Balkan States generally, of Scandinavia, of Switzerland, Scotland, and parts of England, those places where milk and dairy products form one of the prominent, the most prominent constituent of the diet.

The situation in this country to-day is one of great gravity, and I come here to-day to present to you just as briefly as I can a little story which applies to the subject in hand. As I say, most of our fundamental experiments in physiology and medicine are carried out on animals. No one would excuse me, and they would be at fault to excuse me, if I were to bring to you here pictures demonstrating [fol. 341] faulty nutrition of human subjects, because our ethical system does not permit us to do that. But I may assure you that what I demonstrate to you with pictures of our domestic rats, produced during the last 12 or 15 years, finds its analogue in every instance in the hospitals of Baltimore, in the hospitals of every other large city in the United States, and even more so now in war-stricken Europe.

To give you an idea of what I am talking about, I want to show you what we regard as a well-nourished specimen of the domestic rat such as we have used for many years for experimental purposes. [Exhibiting a photograph.] Note how bright his eyes are. Note the fine coat, the fine muscular development, and how clean and perfect he is in every particular.

Now, gentlemen, let me illustrate next two animals which were closely related. I might say that our animal colony has been inbred for 11 years now in order to prevent possible infection of disease, but we have selected always the most magnificent specimens for breeding stock. These animals [exhibiting another photograph] were the same age and from the same family. Their diet differed in only one respect and that was the character of the fat which it contained. The one nearest to me had 1½ per cent of butter fat in his diet—good quality, fresh butter fat. The one farthest from me had the same diet except that it had 5 per cent of cottonseed oil in it. Our experiments with coconut oil are some years old now and I, unfortunately, have no picture. I must repeat it one of these days and get a picture, but this is an illustration of what you get with any vegetable fat.

I have with me one other picture which illustrates the same principle with sunflower seed oil [exhibiting another photograph]. The little ragged, undersized individual suffering from rickets had the same diet as the other one you see there. The one nearest me had 1½ per cent of butter fat; the other had 5 per cent of vegetable oil.

Now, what happens, specifically, when this unknown substance, one of the three vitamins, which is found in abundance in milk only—there is a certain amount of it in certain other foods, but it is one of the limiting factors of our nutrition, this unknown substance which is so abundant in butter fat and that is not found in any vegetable oil—what happens when that is left out of the diet. Let me call your attention again to the bright eyes of the animal I first showed you there, and then look at these [exhibiting another photograph]. You will see that farthest from me we have the picture of the normal eyes of a well-fed rat. In the middle you find a case of oedema of the eyes, a swelling, a dropsical condition. Nearest to me you find the extreme of that dropsical condition, which precedes death. It only takes three, four, or five weeks to produce this condition when there is an absolute lack of that unknown substance.

We have on scores and scores of occasions taken animals that were in this condition to which I am pointing—eyes swollen shut, ulcers on the cornea, yellow spots in the colored portion of the eye, due to the eye filling up with white corpuscles—we have taken them in this condition and given them a moderate amount of butter fat, say 3 or 4 per cent, and in two or three days you can see their eyes are a little better. Then in from two to three weeks they come back and look like normal animals. Leave that butter fat out of the diet and put in a vegetable oil, such as cottonseed oil, and they go right back into this condition. I have put them into that condition and brought them back not less than four times on several occasions, using the vegetable fats in the same otherwise unmodified diet to bring them into that condition and butter fat to bring them out.

One of the most spectacular things I have ever witnessed is illustrated by what I want to show you here now. Here again are two animals of the same age, of the same stock, of the same family. Their diet differed only in one component, and that was in the presence of milk in one diet and its absence in the other.

To make it as clear to you as I can, let me say that this is not a matter of a single experiment; it is a correlation which we can make through an experience covering 15 years and covering about 4,000 carefully conducted feeding experiments of all degrees of length from a few weeks to the full span of life of the animals.

This one at the top was fed with the following substances: Five per cent each of turnips and beets, 30 per cent of potatoes, 10 per cent each of legumes, beans and peas, 10 per cent of beefsteak, roundsteak, cooked and subsequently dried. It had 30 per cent of wheat flour, bolted wheat flour, and 20 per cent of cornmeal.

There is a diet, gentlemen, consisting of two fleshy roots, turnips and beets; one tuber, the potato; two legumes, peas and beans; one animal-flesh food, roundsteak; and two degerminated cereal products, wheat flour and cornmeal.

You see what happened to this animal—I might say that both of these animals were one-quarter through the span of life which we have a right to expect.

Mr. Aswell: Would skimmed milk have helped them any?

Dr. McCollum: Skimmed milk would have done a small amount of good, it would have helped him, perhaps to live three months longer than he did. He was about six months of age. The one at the bottom had the same food, absolutely the same food mixed, except that we cut the potatoes from 30 to 24 per cent and the peas and beans each from 10 to 8 per cent of the diet in order to find room for 10 per cent of a high grade whole milk powder. This is a dried milk, you understand. They were the same age, they had the same parentage, the same diet absolutely, with the exception that one had 10 per cent of whole milk powder containing the butter fat, and there is the difference that you get.

Mr. Kincheloe: Would that difference have been so marked if you had fed him some skimmed milk?

Dr. McCollum: If we had fed him some skimmed milk the difference would not have been so great; but the important consideration is this, that while the one at the bottom is capable of living to about 36 months, that is the extreme span of life of the domestic rat, the one at the top would live about 7 or 8 months. You see him here in a very depleted condition at the age of 6 months. At the age of 11 or 12 months in numerous experiments we have found them ready to collapse and die.

Mr. Aswell: Did you begin that feeding in their infancy, or did you wait until they were grown?

Dr. McCollum: We began that feeding just as soon as the animals were weaned.

Mr. Aswell: If you had waited until they were both pratically grown, what effect would it have had?

[342] Dr. McCollum: If we had waited until they were practically grown, which would have occurred in about 150 days, the life histories of those two animals would have been essentially this. If we confined ourselves to males, where the strain of reproduction would not enter in, we would observe essentially this. We will say we brought them up on satisfactory diet, and they both looked all right like this [indicating]. In about from 150 to 200 days—I am making a liberal estimate—they would look just as depleted as this one here is [indicating].

In other words, what I want to impress upon you is that if we have the public-health idea foremost in this discussion, if we are going to consider human health as the greatest thing before us, then we are not to consider whether an individual can live a while, whether he can grow up to be half a man, on one kind of food as contrasted with another. What we want to do is to keep in mind the idea of physical perfection, of longevity, of low infant mortality. Those are the things which we must keep in mind, and if we keep those things in mind, gentlemen, we are going to promote in every way possible the welfare of the dairy industry in this country, because there is no other way it can be done.

Now, just let me give you one other illustration. We have in this country, mostly throughout the South, a disease called pellagra. Pellagra was discovered in this country about 1908 or 1909. It had been alarmingly on the increase up to about two or three years ago, up to 1917, when we found, according to the Public Health Service representatives, that there were about 170,000 people with that disease. It decreased somewhat while the war gardens were in existence, but Dr. Goldberger and others in the Public Health Service and in State health services in the South have told me within the last few weeks that the indications are that it is again on the increase and that we may look for a marked increase in the next year or two.

The great research in pellagra has been done by Dr. Joseph Goldberger, of the Public Health Service. He has shown very clearly that it is a disease of the undernour-

ished, of the poorly nourished. It is a disease which the well fed never have, and those who have it in a mild way, in the early stages, recover on a satisfactory diet, and there is no other effective treatment for it than satisfactory diet.

Mr. Kincheloe: What significance did the war gardens have?

Dr. McCollum: The war gardens had this significance, that we got the people of this country to eating not only turnips but the turnip tops. We got them to cultivate quantities of cabbages. In other words, we taught them for a brief period, with the motive of patriotism behind it, to eat a diet more or less comparable to the fairly successful diet of the Chinese and the Japanese. But it is not an appetizing diet, and they slip away from that when the spur of patriotism is gone.

Dr. Goldberger has shown conclusively—and his papers are in the public health reports—that pellagra disappears from orphanages, from insane asylums, and from hospitals when pellagra patients are fed on the right kind of diet. In 1916 he produced pellagra experimentally in man, in the cases of 5 or 6 out of 11 volunteers from the State prison of Mississippi.

In 1916 the governor of Mississippi volunteered to aid the Public Health Service by offering a pardon to any adult healthy male white prisoner who would volunteer to take whatever diet Dr. Goldberger might prescribe for a period of six months. Twelve volunteered, and 11 actually underwent the test. He fed those men on the following list of foods—I say all this because I want you to understand that it is more important to know what it is to eat than it is to know that we have enough to fill us up. He fed those men on dishes prepared from the following list: There was ordinary white flour, ordinary store corn meal, rice, starch, sugar, molasses, fat pork, cabbage, collards, turnip greens, sweet potatoes, and coffee.

I got from Dr. Goldberger a fairly complete record of the menus furnished these men during some weeks, and calculated from those records that less than 4 per cent of the total food supply of those men came from cabbage, collards, turnip greens, and sweet potatoes altogether. You see, they were eating these things, but only in small amounts. The result was that on that diet, which the men never complained of, because it had sufficient variety—it was what most of them were accustomed to—in the course of six months, 6

of the 11 men were diagnosed by Dr. Goldberger and other physicians of the Public Health Service and several other dermatologists who were familiar with pellagra, as having incipient signs of that disease. Just as soon as Dr. Goldberger reported that he had produced pellagra in men by this diet I procured from him a record of just what he fed those men, and I thought I would see what would happen to a group of our experimental animals if we restricted them to that diet. So, Mr. Chairman, we brought up a large number of animals to look like this [exhibiting another photograph]. First we put them on a highly satisfactory diet and made them look like that [indicating], and brought them up to an age of six months. Then we made up exactly Dr. Goldberger's diet on which pellagra in men had been produced, and fed it to these animals for 120 days. This [indicating] is a typical representation of about 75 animals that went on that diet. The control group, and other cases besides, looked essentially like that.

What is the matter? The matter is that you can not make a satisfactory diet out of cereals, peas and beans, potatoes, fleshy roots and muscle meats, of which we are so fond—and ham, round steak, porterhouse steak, and so on. Not that we can not grow up on it, not that we can not live on it, but you will be as old looking at 40 years as you would be at 65 on a proper diet. We see just that sort of thing around us to-day, gentlemen, and the medical profession is beginning to appreciate that there is nothing more fundamental in creating vigor and vitality and natural resistance, in preserving the efficiency and the characteristics of youth than the proper kind of diet.

Mr. Kincheloe: What makes a nutritious diet, Doctor? [Laughter.] I am asking for information, because I have been growing pretty strong on that deleterious stuff you are talking about, and I think I am pretty strong.

Dr. McCollum: Gentlemen, I welcome this question, because I see before me a number of men who can profit by what I have to say. [Laughter.]

Mr. Kincheloe: I will say to you, Doctor, that if I am one of them I am deceiving my looks.

[fol. 343] Dr. McCollum: Our national dietetic sin is living too much on wheat flour, on bread made from it, and other cereals having similar dietetic properties; on tubers, such as the potato and sweet potato; and on meats. That type of

diet has never succeeded with any class of human beings: it will not succeed to-day, and never will?

Mr. Kincheloe: You mean that that is not conducive to longevity?

Dr. McCollum: That is not conducive to longevity; it is conducive to early aging and to physical breakdowns of various types.

Mr. Aswell: What would you add to that?

Dr. McCollum: The thing for us to do, gentlemen, is this: We are as a Nation now using approximately half a pint of milk per day per person. We are using very little of the green leafy vegetables, and we are using too much meat. The proper thing for us to do is to replace other things in our diet—we should take at least a quart of milk per day, or its equivalent, and we should reduce our meat consumption to approximately 5 per cent of the total energy value of the diet; whereas we are now taking from 10 to 13 per cent, according to statistics I have gathered in numerous boys' schools and other institutions.

Mr. Kincheloe: What would be your substitute for that meat?

Dr. McCollum: The substitute would be the quantity of milk which I have described—a quart of milk per day for every individual in the land, half as much meat as we are taking, and then the cultivation of the practice of using green salad dishes just as far as our appetites and our interest in our own physical well-being will permit us to.

Mr. Aswell: How about eggs?

Dr. McCollum: I am asked a question about eggs. Eggs are a close second to milk in their dietary properties, except that the mineral content of eggs is faulty. From the standpoint of substituting them for butter fat, egg yolks are of excellent quality.

Mr. Clarke: What is the comparison of the mineral content of eggs and milk?

Dr. McCollum: Eggs are rather too high in phosphorus and acid-forming elements, and very much too poor in lime.

Mr. Kincheloe: Doctor, you have got me interested in this, because I would just as soon take a dose of medicine as a glass of milk. I do not like it and can not drink it.

Dr. McCollum: There is no question that many people who use eggs can take very considerable amounts of milk and never know it if it is properly used in cookery.

Mr. Kincheloe: But I mean to just drink the milk.

Dr. McCollum: Well, I would not urge anyone to do that if it does not agree with him. That is due, I presume, to a distaste formed in early life as the result of taking milk of bad flavor, in bad condition. It is very hard for us to overcome a dislike for a certain food which has made us ill.

Mr. Kincheloe: That is not my experience. I do not want to inject myself into this thing. I used to like milk when I was a boy, but I lived around boarding houses so long I got disgusted with the whole thing.

Dr. McCollum: That is probably due to the fact that in so many cities of the country, and on farms, too, the milk is not as clean as it ought to be.

Mr. Jacoway: I do not want to break into the continuity of your statement, Doctor, but your testimony h e is interesting and illuminating. I want to ask you this: Suppose you have a child that is anemic, say, a girl 4 years old, and she will not eat the balanced meal that you have prescribed here. Are you going to starve that child into submission, or what are you going to do in a case of that kind?

Dr. McCollum: In a case of that kind, of course, I can only make a most general answer, because each case of an ill person is an individual case and a case for individual study. But I should see to it that the child had attractive food, that if it did not like the things which were good for it, that those were so disguised as to make them acceptable. That is, of course, a problem which I can not go into in detail; I would have to study that. But it is quite possible to do it. It has been done in very numerous cases where parents have become interested in the subject of scientific nutrition and I help them as far as I can. It is quite possible to do it. There is nothing more detrimental to the rising generation than the abnormal food habits that are developed. You can develop a habit of wanting all your food sweet just as you develop a habit for alcohol.

Mr. Voigt: Doctor, the effect of what you have said, I take it, is this, that there can be no satisfactory diet invented for human beings without milk?

Dr. McCollum: That is exactly what I wish to say; that is, any diet that is acceptable to civilized people. That is, we are not going to turn to the carniverous diet such as the American Indian followed when he subsisted on the buffalo. If we are going to be of the type of the Chinese, where a

man looks forward for years to retiring and letting his sons make his living after he is 50 years of age, if we want to be the unprogressive people that the orientals have been, then all well and good, gentlemen; just go ahead and use your influence in that direction.

But if we want to be what the great conquering tribes that came out of Asia were, whose descendants have peopled Europe and America and the other best regions of the world with the progressive people that we have to-day, then you want to cultivate physical well being, you want to cultivate stability of nervous system and everything else that is good that can be cultivated by other means than diet; but the most fundamental thing of all, gentlemen, is proper diet.'

Now, I want to show you two or three more pictures, in order that I may quit without tiring you out.

Mr. McLaughlin of Nebraska: Did I understand you to say that the average amount of milk consumed by the American people is half a pint a day?

Dr. McCollum: I undertand it is half a pint a day.

Mr. McLaughlin of Nebraska: And you advise a quart a day?

Dr. McCollum: I advise a quart a day, and have taken it for many years. I have four children, the oldest 14 years old and the youngest something like 6, and they have all taken it from infancy up and never objected once. Why? Because I had good quality stuff for them to take.

Mr. McLaughlin of Nebraska: I was just doing a little figuring, applying that statement to my own family. There are seven of us in the family, and our milk is costing us 17 [fol. 344] cents a quart. If the American public consumed four times as much per individual, I figure it would cost me about 56 cents per quart, basing the figures on the present supply. That would make my milk bill $7.92 per day, whereas my entire grocery bill now is less than $2.50 a day on the average.

Dr. McCollum: It could not possibly be that. How many quarts do you take?

Mr. McLaughlin of Nebraska: Seven quarts.

Mr. Voigt: It would be 7 times 14.

Mr. McLaughlin of Nebraska: It would not be 14. If you multiply the present demand by four and the supply remains as it is, I am assuming the price would be 56 cents a quart.

Dr. McCollum: I can sympathize with you in your feeling about the milk bill, but I also sympathize with you when your meat bill comes in and all your other bills. It is a question, gentlemen, whether you are going to accept established scientific facts regarding what constitutes a satisfactory diet or whether you are going to accept something else.

Mr. Jacoway: I want to ask this question before you get away from that. I am very much interested in it, because I have some children myself. I want to go back to your children. How long have you fed your children this milk diet and this quantity of milk?

Dr. McCollum: They never got away from a quart of milk a day after they were old enough to take that amount in infancy.

Mr. Jacoway: Now, I want to ask you if they slept well?

Dr. McCollum: Yes, sir.

Mr. Jacoway: Now, the principal question I wanted to ask is this: What is the condition of their teeth?

Dr. McCollum: I will give you just a little general history of my children, if you want to know.

Mr. Jacoway: Yes, I do.

Dr. McCollum: My boy is now in his 14th year. He has some of my characteristics. He is somewhat overheight, and for his height he is, as I am always, somewhat underweight. But for his age he is about 14 pounds overweight. He is something like 5 inches overheight, and at 13½ years he is physically just as capable as I am myself—and I do not want to boast about that, but I have made rings about a good many people in tramping about the Rocky Mountains. I invite you all to take a tramp with me.

My children are, as I say, between the ages of 5 and 13½. My boy has two defective teeth. One of those he broke by falling while on roller skates. The other is a tooth that is defective in the formation of enamel.

The other children—one girl, in her eleventh year, has perfect teeth. The 9-year-old one now has her second teeth, and she has absolutely no flaw in her teeth anywhere. As to my boy, I might say I did not begin to know how to handle him in infancy as I do now.

Mr. Aswell: Do you know now?

Dr. McCollum: I feel confident I can bring up any infant that has a satisfactory inheritance. I can bring it up without a flaw in its physical development and with a perfect set of teeth in its head.

Mr. Jacoway: Now, describe, if you please, how your children slept.

Dr. McCollum: My children are all, according to the several tables as to what constitutes normality in height and weight for age, right at the maximum figure for both height and weight for their ages, and they are as healthy a group as you will ever see. Aside from the imperfections of childhood, we have had no trouble with them at all.

Mr. Jacoway: Did you observe any rules about putting them to bed at a certain time and getting them up?

Dr. McCollum: Yes, indeed. My children were always taught from early infancy to be put into a room by themselves where it was quiet and to stay there a good part of the time. Their entertainment was confined to a few minutes at frequent intervals. We turned them over whenever it was necessary to make them comfortable. We never allowed people to jounce them up and down until they were tired and frightened. We do not take them on excursions up and down the river on hot summer days. We did not feed them on milk that had stood on the doorstep on a hot day until it got warm and the cat had come around and licked it before we brought it in.

Let me give you another illustration or two, if you are interested. There is no group of people anywhere in the world, gentlemen, that had better ancestors than the carniverous American Indian. Parkman, in his numerous books on American history and on the Indian, testifies: Lewis and Clark in their diary testified as to the fine physical development of the plains Indian, who was a strictly carniverous man. He was as fine a man as the lion is a lion. But he ate all parts of the animal. He opened the veins of the neck and drank the blood. He ate the digestive tract. He ate the brain. He ate everything. Why? Because he was a carniverous man. Carniverous animals have that kind of appetite. They leave the muscle to the last. But we have developed an abnormal appetite for the poorest meat in the carcass.

Here is another illustration: If you go out through the Dakotas and Minnesota and Montana, and all through the West where we have noncitizen Indians herded on reservations, the wards of the Government, you will find the Government has handed them money from time to time for many years. They have had no appetite for agriculture.

Such live stock as they have is generally horses. They have sat there and enjoyed the fresh air and sunshine and gambled and drunk whisky more or less. The Government has, however, done its best to protect them against the evil effects of alcohol.

Now, what happened to them? If you want to see a right good illustration of the application to human experience of what I am telling you, go out to Glacier National Park in Montana—to Browning, just east of Glacier Park. There is a Blackfeet Indian reservation. They have a big area, one of the finest pasture lands in the world. There you will find the Blackfeet Indians, wards of the Government, who have sat there for more than a generation with their herds of horses as their sole property, or nearly so. There you will find grocery stores that are very similar to the grocery stores in Baltimore and Washington. What do they have on their shelves? They have wheat flour; they have degerminated cornmeal; they have breakfast foods that are so poor a worm could not live on them; that is the reason you do not find weevils in the boxes. They have plenty of canned peas, canned beans, and canned everything else in the way of cereals, tubers, and fleshy roots. They have [fol. 345] potatoes. They have all sorts of things, but they do not have any dairy products. Why? Because they do not care to keep cows and milk them, and nobody sells them a food which they probably would not buy, because they have never learned to use it.

Now, when those Indians were in their wild state and were a carnivorous people, they were fine. But go and look at them to-day. There is no group of people in the United States to-day that is dying of tuberculosis more rapidly than the noncitizen Indians. Look at the Blackfeet Indians, and you will find that by middle age nearly every one of them has rheumatism so that he is unable to get about except in a somewhat decrepit fashion. Look at their teeth, and then look at the skulls of the prehistoric Indians and of Indians up to the last generation. Primitive men pretty generally had fine teeth, because most of them were carnivorous people, but look at those Indians to-day, and you will find they are deplorably bad. They are so infected and so rotten that it is through the agency of tooth infections that most of them have gotten their rheumatism. They have plenty of fresh air, they have plenty of opportunity for

exercise, but they do not feel like taking exercise. They sit there and grumble about their condition.

Take another illustration: There was no word in the primitive Eskimo language for toothache. Why? They were a primitive and carnivorous people. But just inquire, if you care to, about the Eskimo people of the present generation along the north coast of Alaska. Men go up there with boats carrying United States groceries. What kind are they? They are all the kinds that keep. They are the kinds that the worms and bugs can not live on, and therefore you can keep them in commerce almost indefinitely without any great hazard. They employ these men in whaling and sealing and the like, and pay them in ordinary United States groceries. Look at their teeth. The teeth of the present generation of Eskimos are just as bad as our teeth.

During the last two years we have been studying one of the greatest national health problems, that is the problem of rickets in children. Rickets is faulty bone growth. I can not tell you how frequent it is. Recovery is the rule, but recovery with physical inferiority is also the rule. Recovery with more or less physical deformity is also the rule. I have asked physicians in New York, Chicago, Baltimore, Detroit, and other cities how many of the children of those cities, in their estimation, had contracted rickets. Nobody knows. Of course, they do not judge by their own practice, but they make various estimates. Dr. Hess, one of the famous physicians in New York, says that nearly 100 per cent of the children of New York have rickets. In Baltimore some of the famous specialists say that from 50 to 60 per cent of our children have rickets in infancy.

Some years ago I discovered how to produce rickets experimentally in an animal. This [exhibiting a photograph] represents two animals of the same age. One of them is a little runty, stunted thing, with rickets. The other is a normally developed animal. Notice how contracted the thorax of this animal is; the space inside is too small. The lungs are cramped. There is no adequate room for heart action. Here is a cross section of the body just below the diaphragm. The lower picture represents the rickety one; you see the deformity there.

Here [exhibiting picture] are two others. This shows you the exterior of the thorax of a normal rat and of one suffering from rickets. You notice his round shoulders, although

he does not stand upright. You also notice the deformity in his breastbone.

This is microscopical, gentlemen, but it is a true picture of human rickets. It is what you would see in the bones of a baby that is dead from complicated rickets.

This [exhibiting another picture] illustrates the extreme deformity produced in a rat by rickets. Notice that the thorax is pretty nearly divided into two chambers. The lungs lie in the back one next to the backbone, and the heart out in front. There is no room in there for anything else, and the stomach and spleen and viscera are pushed downward, making that pot-bellied appearance that you see in children suffering with rickets.

Mr. Aswell: Can you produce that condition by feeding?

Dr. McCollum: That is produced similarly. We have produced approximately 2,000 animals year after year now under the same conditions of ventilation, cleanliness, etc.

I know more about this, gentlemen, than anybody else knows, because my experience is at least three-fold that of anybody else; and if Dr. Mandel is brought up here as an authority to contradict what I have said, I want to say this: Dr. Mandel has had considerable experience as an investigator, but in a different line more or less. He has confined himself to more technical problems, such as how good individual purified proteins are. He was a simultaneous discoverer with myself of the peculiar quality and properties of butter fat. But when he gives his statement that he sees no reason why a substitute, and a substitute which is not an effective one, for whole milk, either in the fresh or in the canned form, should not be sold without restraint to the American public, he is giving his opinion prematurely. If I could sit down with him for a few minutes and talk with him about this matter in its larger aspects he would never have given the snap judgment that he gave in that telegram which will be presented to you.

Mr. Clarke: I used to go to school with Prof. Mandel, and I am somewhat interested, of course, and I say that in order that you may understand my position in the matter. What is Prof. Mandel's recognized standing in the scholastic world, not alone in this country but abroad as well?

Dr. McCollum: Prof. Mandel is a widely known scientific man.

Mr. Clarke: And recognized as a man of great ability?

Dr. McCollum: Oh, yes; he is recognized as a man of high attainments. But I will say he has given a snap judgment on this one point, and if you want his real judgment get him down here and ask him of some of the things I have just told you are not so. If they are not so, then ask for an explanation as to why such evidence can be brought before you.

Mr. Clarke: Do you not think it rather unfair for a professional man occupying your eminent position in speaking of another professional man occupying a preeminent position to say that he giving a snap judgment?

Dr. McCollum: No, sir; I do not. Dr. Mandel has criticized many of the statements I have made during the last 10 or 15 years—never successfully, I might add. I have [fol. 346] criticized some of his. It is a common practice among scientific men to criticize, honestly, fearlessly, and openly, whatever they believe to be a misrepresentation of truth.

Mr. Clarke: I perfectly agree with that, but I dislike the adjective you used there in accusing Prof. Mandel of giving a snap judgment.

Dr. McCollum: I say he has not given to this subject the consideration that he should have given to a matter of such great importance. I am not saying a word against Prof. Mandel.

Mr. Aswell: Does a real scientist ever give snap judgment?

Dr. McCollum: I think no one is so immune to error that he may not give snap judgment on some occasions.

Mr. Kincheloe: Let me ask you a question on something I know a little about. Do you not regard oatmeal with good rich cream as a food?

Dr. McCollum: With good rich cream, if you put plenty on it.

Mr. Kincheloe: I have a little girl 7 years old, in splendid health and general physical condition; but, speaking of the decaying of the teeth, even her milk teeth have been decaying. Is that any criterion of bad health?

Dr. McCollum: Yes; the teeth buds are formed before the child is born. The enamel is put on them before the teeth are erupted, before they become visible, and it is while those teeth are forming that the quality of their enamel is determined.

Mr. Kincheloe: I am speaking of the milk teeth, you understand.

Dr. McCollum: That is true of the milk teeth, too.

Mr. Kincheloe: She is certainly a stout child and in splendid heath.

Mr. Voigt: I dislike to interrupt you, but we have to save all the time we can. Will you kindly make a statement as to what you think of those condensed milk substitutes?

Dr. McCollum: My parting statement, gentlemen, will be this, that there is no question but what milk is the only food for which there is no effective substitute. It is not a question of whether there is some food value in skimmed milk, as to whether we can not get along in some peculiar situation, that one might not get along if a suitable amount of eggs were included in the diet every day. It is not a question whether technically you can bring before a legislative committee of this sort a situation which might work in a satisfactory manner without this food. But this is the point, that we are educated to use milk. We are a people who for hundreds of generations have depended upon dairy products as a prominent article of our diet. We know how to use it, and we like it. We have an agricultural industry which can not remain a permanent one—there can be no permanent system of agriculture without an animal industry to go with it. Which animal industry are you going to maintain?

This is not a public health aspect in its nearer relations, but in its fundamental relations it is. How are you going to maintain a permanent system of agriculture? Phosphorus and potassium are the limiting factors in the soil of America. We have no deposits of phosphorus and no adequate deposits of calcium that will meet the agricultural needs of this country for fertilizer. If we are going to take off the farms continually the cereals and other crops, if we are going to remove the valuable food from the farm, then we sell the fertility of our farms. You will be doing then what has been done in New England, in New York, in Pennsylvania, and is now being done in the Northwestern States; you will crop your soils out until they will produce no more, until certain elements are put back, because they were robbed from the soil.

Mr. Voigt: May I ask you a few questions, Doctor? You do not claim that there is anything intrinsically injurious in those milk substitutes?

Dr. McCollum: There may be nothing intrinsically injurious in them, but they are an inferior product. I do not know how many children are fed on those substitutes for milk; perhaps none, but there is danger that there will be. How many ignorant people in the crowded quarters of the cities, how many foreigners who know too little English to read a label and to understand the finer points of the thing—how many of them are likely to feed an infant on this canned milk? I guarantee that any infant that is fed for a few weeks on one of these milk substitutes will develop rickets as severe as you see it right here. [Exhibiting photograph.] So my suggestion is that we do everything that is in our power to maintain at its full tide an industry so important as the dairy industry, and to bring the American cow into competition with a coconut grove is an injustice.

Mr. Aswell: Is it a fact that the quantity of vitamines in milk is affected by the food of the cow?

Mr. McCollum: Yes; that is quite true.

Mr. Aswell: And is it not possible for milk to have practically no vitamines at all?

Dr. McCollum: It is possible, but hardly probable, because the dairy cow is fed along lines that are common throughout the country. There is almost always a large amount of leafy food.

Mr. Aswell: But if the cow does not have that——

Dr. McCollum: Then she would not have the vitamines in her milk.

Mr. Voigt: What would be the effect of feeding this milk compound to an infant?

Dr. McCollum: I have never tried it, and I would not try it; but I will predict from such results as I know follow from animal experimentations, that they would develop rickets every time.

Mr. Aswell: May I suggest that you try it out on your rats?

Dr. McCollum: I have been doing it.

Mr. Aswell: You have not been feeding them any of these compounds?

Dr. Collum: No.

Mr. Aswell: Why not try it out for our benefit?

Dr. McCollum: I will be glad to try it out for your benefit.

Mr. Voigt: Have you tried feeding rats on milk from which the butter fat had been extracted?

Dr. McCollum: Yes, indeed.

Mr. Voigt: And what has been the effect?

Dr. McCollum: The result is that the animals lack a sufficient amount of the vitamines which butter fat supplies, so that in the course of time, depending, of course, on the [fol. 347] age of the animal when you begin—the little ones are more sensitive than the older ones—but depending on the age of the animal you will get something like this effect. [Exhibiting picture.] If the deficiency is nearly absolute, you will see this eye condition that I have shown you. This condition, I may say, is common in Japan; it is common in Denmark. We have had two cases in Johns Hopkins Hospital in the last year of that eye disease in babies. There is no question that any infant restricted to this diet for a little time will develop a faulty skeleton, because this butter fat is not only concerned with the peculiar eye trouble that I have mentioned, but is also a very important factor in skeleton growth.

Mr. Voigt: Is there any substitute that will provide that principle of growth for infants?

Dr. McCollum: There is no similar property in any vegetable oil, including coconut oil and cottonseed oil, comparable with what you find in butter fat. I am aware of the fact that people can bring before this committee experimental data to show that they have had a little growth somewhere in the life history of an animal, but there are thoroughgoing and adequate experiments, and there are experiments which are not adequate, and it always happens, that when there is litigation about a subject of this kind if there is expert testimony brought up which is detrimental to the interests of one side they proceed at once to bring in scientific experience to refute it. You can get it. Take the whole history of the fight of the American Medical Association against patent medicines. There were physicians that were willing to go before a committee and prostitute themselves by upholding the sale of these remedies—fake cancer cures, female weakness remedies, and the like, but I need not go into that.

Mr. Kincheloe: I notice that one of these cans says: "Do not use in place of milk for infants." Is there anything injurious in that?

Dr. McCollum: In respect to that I would say no, if the letter of the label is carefully read and the result interpreted. But there are in my estimation only two ways in which the public can be protected; one is through legisla-

tion, wise legislation, fearlessly and energetically enforced; the other is through education.

Mr. Kincheloe: Why could they not be protected by the prescription on here saying, "Do not do that"?

Dr. McCollum: That would protect those who are capable of reading and who take the trouble to interpret the labels, but I am speaking in behalf of those tens of thousands of uneducated mothers, of foreign mothers, who are not capable of reading that label. We are protecting the public against poisonous drugs, in so far as it is possible, by laws and ethical considerations regulating the actions of pharmacists. That is the best we can do.

Mr. Kincheloe: The point I am asking for information on is this: If it is not deleterious to the health of the individual——

Dr. McCollum (interposing): It is deleterious.

Mr. Kincheloe (continuing): When it is used in baking, cooking, and in coffee, if it is not deleterious when so used, why should the people who want to use it be deprived of it?

Dr. McCollum: I should say that these defects in these substitutes will not take the place of the milk, if we are to have an optimum diet; if we are to have an optimum diet, you have got to adhere to the milk. If you take something out of it——

Mr. Kincheloe (interposing): That is not the question I am talking about. I am going to agree with you that it is not good for infants.

Dr. McCollum: It is not good for adults either.

Mr. Kincheloe: You said awhile ago that it was not deleterious for use in baking, cooking, and in coffee.

Dr. McCollum: It is deleterious in so far as it crowds out other things that are in the whole milk, and which these substitutes are intended to take the place of.

Mr. Kincheloe: I do not think that is an answer to my question.

Mr. Voigt: Doctor, let me ask you a question in that connection: If a grown individual used this substance instead of milk, would his health suffer?

Dr. McCollum: If he allowed it to crowd out the dairy products sufficiently, he would not have the vitality or the health that he would have if he used a sufficient amount of whole milk.

Mr. Voigt: If people used it in coffee, it would be deleterious, would it not?

Dr. McCollum: Only to the extent that it crowded out legitimate dairy products. That is the salient point. The labeling is important; let us insist upon the right kind of labeling. That is one of the dangers to the protection of the public health. But it is not sufficient, in itself, to do that; that is, to protect the public health. We must have legislation supplementing that, in regard to the handling of food products, and also supplement that with education of the individual.

The Chairman: Is that all? Dr. McCollum, we are very much obliged to you. Gentlemen, it is a quarter after 12 o'clock; what is the pleasure of the committee?

Mr. Clarke: Mr. Chairman, if the opposition is not going to call Dr. Mandel to come here, I should like to have him invited here by the committee.

The Chairman: If you are not through, Dr. McCollum, how much more time do you desire?

Dr. McCollum: I would not have imposed upon your time so long, Mr. Chairman, had it not been for the questions that kept me here.

Mr. Kincheloe: If I understood you correctly a while ago, Doctor, in giving a menu, you thought that meat was deleterious, and you did not think much of cereals, except by reason of the milk that was used with them; if that is true, why not pass a law prohibiting the use of meat?

Dr. McCollum: Gentlemen, please do not get such a narrow view. I am trying to give you a correct view. What I said was that sometimes we do eat too much meat, and many of us do eat too much meat. I said that cereals have shortcomings from a dietary standpoint, but I have always insisted that beans, peas, and cereals and meat, irrespective of their shortcomings, be continued in our diet, because we know how to grow them, and we like them if they are properly prepared. But let us fully understand the nature of their shortcomings. Let us only use appropriate amounts of those, and combine with them such things as wholesome dairy products and green vegetables as will correct those deficiencies and make a satisfactory diet.

[fol. 348] Mr. Kincheloe: How are you going to do that, by legislation?

Dr. McCollum: The actual planning of an individual diet must, of course, come by education. But we can protect through legislation. There is no one thing that is a panacea for our nutritive ills, but a proper administration of the

food laws and wise legislation to prohibit things which are liable to injure us and crowd out the more wholesome products will help; and in addition to that, the education, just as fast as we can get it to the public, through legitimate agencies.

Mr. Thompson: You spoke awhile ago, Doctor, of the great races on the Asiatic plains that used sour milk; you used the word "sour."

Dr. McCollum: Yes, sir.

Mr. Thompson: I would like a little more light on that subject, along with the buttermilk question.

Dr. McCollum: I can answer that to your satisfaction in a moment. The reason these people under primitive conditions or under desert conditions or semidesert conditions allow the milk to sour, that is the best method they have for preserving it. If milk is boiled and some of the constituent elements or acids destroyed, then it rots, and becomes unfit for use. But if they allow it to sour, it does not rot, and they have the wholesome advantage of its use. There is no objection to the sour milk itself; it is wholesome.

Mr. Thompson: How about buttermilk?

Dr. McCollum: Buttermilk is wholesome, except that buttermilk is milk from which the fat has been extracted, and a certain amount of sugar in it has been transformed into an acid.

Mr. Ten Eyck: Does not buttermilk create a certain acid or germ in the stomach or intestine which destroys other and harmful germs, and is not that the reason why the Belgians, are the longest lived people, due to the eating of the curd which creates this helpful germ?

Dr. McCollum: Yes; there are some acids in buttermilk which are good in other ways anyway.

Mr. Ten Eyck: Let me ask you, if milk were not used at all, and vegetable oils substituted, what effect would it have?

Dr. McCollum: It would make the interior a skeleton, so to speak, and affect the life history and longevity of the individual, and hasten the time at which senile characteristics would appear.

Mr. Voigt: Doctor, to the extent to which the substitutes are sold, it does deprive the people of the country of the same quantity of good milk?

Dr. McCollum: I understand from the advertisements that I have seen in the papers, and from what people have

told me, and what grocers have said to me, that this is recommended to replace the milk in the diet.

Mr. Aswell: Let me ask you just one more question: It seems to be reasonably certain that the milk supply is insufficient, if used to the extent that you recommend. Now, if it is insufficient, and if the milk supply of the country can not be made sufficient to supply the people, would it not be the next best thing to get the next best article?

Dr. McCollum: No; the next best thing is to cultivate on a much larger scale than it is now being cultivated, the industry which produces milk. We can not have too great a dairy industry.

Mr. Ten Eyck: Let me ask you this question: Does the oat have the same effect on the horse as milk does on the human?

Dr. McCollum: You are asking a question now that will lead to a lengthy discussion. The leaf of the plant, whether grass or oats——

Mr. Ten Eyck (interposing): I am now talking of the oat.

Dr. McCollum: The green leaf you see waving in the field, is what protects your horse, and not the seed.

Mr. Aswell: May I ask if the opposition is to have Dr. Mandel here? If not, I ask that the committee have him invited here.

The Chairman: Let me ask you if the insufficient supply of milk now is not due to the competition of these counterfeits on the market, crowding out the milk.

Dr. McCollum: It is, of course, in part due to that, because anything which tends to replace milk and which can be bought for a small margin less price will be a successful competitor with a large part of the purchasing public that does not understand the fundamental principle involved.

The Chairman: It is crowding out milk?

Dr. McCollum: Yes, sir.

Mr. Ten Eyck: One of the causes of that is that the producer of the milk does not get enough to compensate him for producing milk, and on account of the big spread it costs the consuming public so much more?

Dr. McCollum: Yes, sir.

The Chairman: We are much obliged to you, Dr. McCollom.

Mr. Aswell: May I ask now if the opposition to this bill do not intend to invite Prof. Mandel here, and if they

do not, I want to make a motion that the committee invite him here.

Mr. Clarke: I second the motion.

Mr. Davis: I do not know whether he is to be here or not. I have not made any plans to invite him. I know that before the legislative committee of the senate, at Harrisburg, the question arose as to Prof. Mandel's opinion, and I think at the time Senator Smith, the chairman of the committee, wrote to Dr. Mandel for his opinion, and Dr. Mandel gave that opinion.

Mr. Aswell: Where is he now?

Mr. Davis: I do not know whether they have had their commencement yet or not, but I think he is probably still at New Haven. I do not think it can be charged under those circumstances, upon the invitation of a legislative body, that Prof. Mandel would give snap judgment.

The Chairman: Do you think he would be willing to appear before the committee?

Mr. Davis: I have every reason to believe that he would come.

Mr. Aswell: My motion is that he be invited to come.

The Chairman: The motion has been seconded.

(The motion was thereupon put and prevailed.)

Statement of Mr. A. J. Glover, Editor of Hoard's Journal, Fort Atkinson, Wis.

The Chairman: Please state your name, occupation, and residence.

Mr. Glover: My name is A. J. Glover; I am editor of Hoard's Dairyman, published at Fort Atkinson, Wis.

Mr. Chairman and gentlemen of the committee, Dr. McCollum has presented to you one of the primary reasons for [fol. 349] the existence of the dairy industry; he has shown you that milk is our only protective food; he has approached this subject from the standpoint of health and nutrition. We in Wisconsin have just passed a bill through both houses of our legislature which will prohibit the manufacture and sale of this product, because we found it sold as milk, and therefore it is a counterfeit. I do not desire to speak from that point of view for the few moments I will occupy.

But I do want to say something about the position the dairy cow holds in building and sustaining a permanent system of agriculture. Perhaps I can do that better by citing the condition of agriculture in Wisconsin in 1870, after growing wheat for a period of over 30 to 40 years continuously. The soil was run down, and yielded only 8 bushels of wheat per acre, and the land was selling for about $15 per acre. There was no real rural development. Many of the farmers left that State for Minnesota, and some for Dakota, where they could again follow a single system of agriculture. There were men in our State who had come from New York and Ohio and had seen the benefits of dairying and understood the relation of the cow to the soil. These men pointed out the need of the cow, what she would do for the soil and the need of her product. Wisconsin is now the leading dairy State in the Union. We have in Wisconsin 1,800,000 dairy cows. Soil fertility has been returned, and the farms are producing more than ever before.

During the war the farmers were told that we needed wheat, and they sowed some wheat, and the yields were from 25 to 45 bushels of wheat per acre. We do not grow wheat now except at the request of the Government.

Dairying has brought wealth to Wisconsin; it has stabilized her agriculture; it has built 190,000 homes on dairy farms in that State, and they are all prosperous. Since the inception of the dairy industry it has been brought into competition with so-called dairy substitutes and filled cheese was one of the first substitutes to threaten the dairy industry of Wisconsin. Filled milk is comparable to filled cheese. Wisconsin is still suffering from the effects of filled cheese, notwithstanding none has been made in that State for 30 years or more. The manufacturers of filled milk hold it provides a market for skim milk, but this position is not well taken. The live stock of the farm furnishes a better market and every pound of coconut oil used in the manufacture of filled milk takes away a market for butter fat. A law was passed in Wisconsin which has prevented the manufacture of filled cheese.

Mr. Aswell: When was that law passed?

Mr. Glover: Somewhere in 1888 or 1890.

Mr. Aswell: That was a long while ago.

Mr. Glover: Yes. We have cheese sold as New York because Wisconsin cheese had so bad a reputation. In

order to get a good price for the good cheese it was and is to some extent still sold as New York cheese. In this way we are paying the penalty still.

Mr. Kincheloe: Would that not be a violation of the pure food act?

Mr. Glover: It would now.

Mr. Voigt: It is on a parallel with the filled cheese situation?

Mr. Glover: Yes, sir.

Mr. Davis: We protest that statement.

Mr. Glover: In our investigation it was found that 34 stores out of the 35 which handled filled milk sold and advertised it as milk. This is where the fraud enters. The label on the can did not protect the customer. The grocers did not sell it as a compound of cocoanut oil and skim milk but as milk.

Mr. Kincheloe: Does that not violate the pure food act?

Mr. Glover: Yes. The Supreme Court has held that the label does not protect.

Mr. Kincheloe: It can protect, but the court held that it was properly labeled.

Mr. Glover: The court held that it was a fraud.

Mr. Davis: That was a holding under an old statute of Ohio——

Mr. Glover (interposing): It does not make any difference how old it is; that is the opinion of the court.

Mr. Davis: The Supreme Court also said that that did not make any difference in the discussion. As a matter of fact, the dissenting opinion said that it was very wholesome.

Mr. Glover: We are here fighting this compound which can be used as an instrument of deception and fraud. Silver Key, a compound of cocoanut oil and skim milk, was advertised in one of the daily papers on May 21 as milk. So we are here pleading that the fraud in this product be obliterated from the market. We can not develop a strong and profitable dairy industry with a counterfeit product on the market. We do not want the dairy farmers of the United States brought into competition, with all their investment, with the native of the South Sea Islanders whose only investiment is a strap for the climbing of the trees to gather the cocoanuts.

I think this committee will see, before they get through, how it is undermining the dairy industry and that it is used

as an instrument of fraud. Filled cheese was sold as cheese, just the same as filled milk is sold as milk.

Mr. McKee: Under a proper label.

Mr. Glover: It was sold as cheese. And bear this in mind, while this is labeled, and 34 out of 35 stores sold it as milk, the purchaser bought it as milk. It was put on his sale slip as milk, and it was taken home and used as milk. The label, so says the Supreme Court does not protect.

Mr. Kincheloe: I don't understand; if they put this out and do not label it correctly, or if they put this label on instead of labeling the true contents of the can, why are they not violating the law?

Mr. Voigt: I think I can answer that. The Federal law is not violated, because you notice every one of these cans has not got "milk" on it, but the grocer sells it for milk.

Mr. Kincheloe: This one [indicating can] says, "Do not use in place of milk for infants."

Mr. Voigt: It is not used as prominently as milk.

Mr. Kincheloe: This one here [indicating can], says it is a compound of skimmed milk.

Mr. Voigt: Yes; but you notice the prominent label that strikes the customer's eye is not "milk."

Mr. Thompson: You mean one is "Enzo" and "Hebe," and so on?

Mr. Voigt: Yes.

The Chairman: Let me ask you a question: Is any fraud connected with the evaporated milk industry?

[fol. 350] Mr. Glover: No; that speaks for itself.

Mr. Aswell: I can understand why both you and my friend Mr. Voigt are perfectly safe in fighting this proposition in Wisconsin, because you do not produce any vegetable oils; but I want to say for that section of the country that does produce vegetable oil, that it agrees with you heartily in trying to build up a dairy industry; but we do not believe that it is good statesmanship or good citizenship to try to destroy the vegetable oil industry. But this gives you a market for your skimmed milk.

Mr. Voigt: Mr. Aswell, may I suggest that this does not affect your southern oil?

Mr. Aswell: But you are affecting the same thing, the vegetable oil.

Mr. Voigt: It seems to me, the southern part of the country would be interested in keeping coconut oil out of the country, because it does compete with your various lines.

Mr. Aswell: We are trying to build up a dairy industry, and we think it will help you. I think the doctor will agree that skimmed milk has a value seven times as great for the human being as it has for the animal.

Mr. Voigt: Then we say, let them sell it as skimmed milk. The whole trouble is they are selling this for pure milk, and there is a fraud practiced on the consuming public.

The Chairman: Let me ask you about the use of skimmed milk for the manufacture of ice cream; is that mixed with a vegetable product?

Mr. Glover: I understand that it is in some cases.

The Chairman: But no fraud is practiced in what called the evaporated or dried milk?

Mr. Glover: No.

The Chairman: If that is all, we are much obliged to you, Mr. Glover.

Mr. Voigt: Mr. Chairman, I have a gentleman here who can make his statement and get through in five minutes.

The Chairman: Very well, we will hear him.

Statement of Mr. Seward A. Miller, of Counsel for the Dairymen's League (Inc.), New York, N. Y.

The Chairman: Kindly give your name and occupation.

Mr. Miller: Seward A. Miller, of counsel for the Dairymen's League (Inc.), New York.

Mr. Clarke: That is the new corporation?

Mr. Miller: That is the old corporation, but I am also counsel for the new Dairymen's League (Inc.).

I want to say, first, that the Dairymen's League, representing in its membership somewhere about 90,000 farmers in six States, is absolutely against this product.

In the first place, we regard this product as a deception and a fraud. It is absolutely a counterfeit; it is not a natural product; it is made, first, by taking the genuine real value out of milk, skimming it, and then putting in a counterfeit in the place of it, and the resembling product is an exact imitation of milk. They do not make it in a color so that anyone can tell the difference. But they use the same amount of solids in it that the statute requires for the evaporated milk. The consistency is the same; the color is the

same, and the housewife, when she pours it out, can not tell the difference. Only an expert can tell the difference. So you have a counterfeit, by taking out the valuable elements of milk, and replacing it by a substitute.

The Chairman: They remove the butter fat and substitute the counterfeit?

Mr. Miller: Yes, sir. Now, I say, secondly, not only is it a fraud but in fact they are selling it for cream; selling it in bulk. In New York there has grown up a practice of selling this in cream; putting this substitute in cream, in place of the butter fat. For instance, in New York City there have been a large number of convictions for that. In the city of Albany the Department of Agriculture found a large amount of this imported from Syracuse, where it was sold. Commissioner Hogue told me they found this product here, where it was advertised as milk.

Our investigators went out in New York and found this situation: In the foreign section—that is, where the foreign languages are spoken almost entirely, hebe and other substitutes are sold as milk. They do not know the difference, and they buy it, supposing it to be pure evaporated milk, and they open the cans and can not tell the difference when they get it home. In the cheaper sections of the English-speaking people it is also sold as a substitute for milk. The child goes to the store, or the woman who does not know the difference, and here is Borden's milk, at 15 cents a can, and there is another at 10 cents or 12 cents a can; and they buy the cheaper grade. On the other hand, in the higher-priced grocery stores there is very little sold there. The fraud is in the cheaper grocery stores and in the foreign-speaking sections.

Now, it is also going into ice cream. For instance, we had one man offered to buy a thousand cans a day and mix it in ice cream. I do not want it in cream, but I can not tell the difference when I get it on the table in the hotel or in restaurant. When I buy my ice cream I can not tell whether it has this stuff in it or not.

And they are putting it in evaporated milk, and are putting it in in connection with cream. Now, I say that the mere fact that the label declares what it is is not sufficient, as the United States Supreme Court has said in the famous hebe case. If you will examine that case, you will find what the court there said.

Now, this is a great injury to our business. In the metropolitan district we are up against a terrible proposition and were up against a terrible proposition on this milk business in the last winter.. The dairy industry, which has been speeded up during the war to produce a large amount of milk, a large number of men having gone into it that had not gone into it before, and they are now going into the business of making evaporated milk. That industry is under tremendous difficulties. We have an oversupply or surplus of milk. For instance, my own concern, the Dairymen's League (Inc.), we have 100 plants that we have had to open since the 1st of May—no, about 70 plants that we have had to open since the 1st of May in order to take care of this surplus, and some have had their product wiped out, as Borden's man will tell you.

Mr. Kincheloe: If there is a surplus, why doesn't the price go down?

[fol. 351] Mr. Miller: It is going down. In New York City it has gone down terribly.

Mr. Aswell: Did the war conditions have anything to do with the surplus?

Mr. Miller: Yes; it has. It hits us doubly. In the first place, in the sale of manufactured milk, we are confronted with large amounts of manufactured milk, Borden's and others. The housewife who thinks she is getting this and does not get it will not buy evaporated milk in the future. And then again, take this substitute; it hits us on the butter and cream sales.

Now, it is going to injure the New York industry. At least half of New York State, I think I can safely say, can only go into the dairy business or the production of animals. The animal industry is practically the only industry that can be followed, on account of the nature of the country, in such counties as Chenango, St. Lawrence, and in the Catskill region. I say it is absolutely necessary to go into the dairying or animal industry. Milk was so high during the war, but at the present time the price of milk, evaporated and condensed, is so low there is no profit in the business. Milk prices have dropped for evaporated and condensed so that they can be sold now—I can not tell you just what it is now, but when a similar bill was up in the New York Legislature evaporated milk was selling for 12 to 14 cents in quantities, and since then there has been a reduction, so

that it ought to be sold now for from 8 to 10 cents. At that price there was absolutely no need for a substitute, because the people had the genuine article at hand for all purposes.

Mr. Kincheloe: I don't think this committee would take into consideration whether it was necessary or not. I think what they want to get at is whether it is detrimental to the health of the people. I don't think it is a question of whether there is any necessity for it.

Mr. Aswell: I don't think this committee will pay any attention to whether you want to keep down competition in your business or not.

Mr. Miller: If it was a natural competition in the business, that would be a different proposition. But they have taken the better parts of our article and after we have evaporated the milk, they have taken these other things and have evaporated them to the same extent.

Mr. Kincheloe: It says here on this can it is evaporated.

Mr. Miller: But the woman who speaks nothing but the Italian language, or some other foreign language, can not tell the difference, and in many cases the child goes to the store and asks for milk and they get this. And in many cases they have the sign up "Hebe milk."

Mr. Kincheloe: What does this sell for now [indicating sample can]; it is marked 13 cents?

Mr. Miller: I think at the present time it is about 8 cents, or 10 cents.

Mr. Kincheloe: Don't you think the difference in price between this and pure milk would put them on notice?

Mr. Miller: I think not, because the stores have sales on this, and the people can not tell the difference. It is an absolute fraud and deception, I think, and it is putting out of business the dairymen, so far as the farmers are concerned. And it is going to drive the condensers out of business.

Mr. Aswell: Whom do you represent?

Mr. Miller: I represent the Dairymen's League (Inc.).

Mr. Aswell: Are you not also the paid attorney for the foods and markets of the State of New York?

Mr. Miller: No, sir; not now. Since you have mentioned it, I was attorney for the farmers' markets for some years, and at that time I took a position on this article, although I had no interest in it.

Mr. Davis: I wanted to state, in connection with the decreased sales of milk, that there is a recent extensive article in the United States Department of Agriculture official bulletin on that subject, in the Market Reporter, that goes very thoroughly into the figures and statistics and says absolutely nothing, strange to say, about the competition of vegetable oil products and says, in short, that "without question the check to the condensed milk industry, through a slumping foreign demand, was disastrous to the milk industry."

Mr. Miller: I do not know what bulletin you are quoting from.

Mr. Davis: The latter part of May, about two weeks ago.

Mr. Miller: Well, just before I left Utica, I received the last number, and that number, or the next to the last number, gave figures showing the effect on the industry of the substitute.

Mr. Davis: It is not in this report.

Mr. Miller: It is in the last one, or the next to the last one.

Mr. Kincheloe: I think, before we close these hearings, we ought to have the chemist of the Bureau of Chemistry of the Department of Agriculture here, and hear what he has to say on this subject.

Mr. Voigt: I would like to bring these hearings to a close as soon as possible, and would like to know what arrangements can be made.

The Chairman: Our calendar is full until the last of this month. The cold-storage hearings will last until the 23d or the 24th; the next thing on our calendar in order is the standardization act; that follows the cold-storage hearings. No definite time is set. But after that are the sugar hearings.

Mr. Voigt: I make this motion, that this bill be taken up at the earliest possible moment, pending the three hearings that are now slated before the committee; that is, that this bill be heard at the earliest possible moment, without any other business intervening after the matters which are already set.

(The motion was duly seconded, put, and prevailed.)

The Chairman: I desire to state to the committee that telegrams have been received from the Indiana Condensed

Milk Co., Indianapolis, Ind.; the Hebe Co., Chicago, Ill.; the Valecia Evaporated Milk Co., Madison, Wis.; and the National Wholesale Grocers' Association, by John D. Newman, assistant to the president, Elgin, Ill., asking that hearings on this bill be postponed to a future date and that they be given an opportunity to be heard thereon.

The committee will now stand adjourned until to-morrow morning at 10 o'clock, when the cold-storage hearings will be taken up.

(And thereupon, at 12 o'clock and 40 minutes p. m., the committee adjourned to meet Tuesday, June 14, 1921, at 10 o'clock a. m.)

[fol. 352]

Committee on Agriculture,
House of Representatives,
Wednesday, July 6, 1921.

The committee met at 10 o'clock a. m., Hon Gilbert N. Haugen (chairman) presiding.

There were present: Mr. Haugen, Mr. McLaughlin, of Michigan, Mr. Purnell, Mr. Voigt, Mr. McLaughlin of Nebraska, Mr. Tincher, Mr. Williams, Mr. Sinclair, Mr. Hays, Mr. Thompson, Mr. Gernerd, Mr. Clague, Mr. Clarke, Mr. Jacoway, Mr. Rainey, Mr. Aswell, Mr. Kincheloe, Mr. Jones, and Mr. Ten Eyck.

The Chairman: The committee has met this morning to give consideration to H. R. 6215.

Mr. Silver, we will be pleased to hear you first this morning.

Statement of Mr. Gray Silver, Washington Representative of the American Farm Bureau Federation Washington, D. C.

Mr. Silver: Mr. Chairman and gentlemen of the committee, the dairymen of this country believe that very few of the people who consumed the 86,000,000 pounds of filled or imitation evaporated milk realized that they were using skimmed milk and coconut oil instead of the condensed whole milk containing the fat vitamines so essential to the growth and development of humans and especially babies.

Aside from the various refinements or slight modifications of the process, filled condensed milk is manufactured by skimming the cream from the whole milk and then sub-

stituting coconut oil for it. In taking away the butter fat the life-sustaining fat soluble vitamines are removed and in its place is substituted oil which does not contain the vital growth-producing substances. Blindness and death ultimately follow the use of food lacking in vitamines. There are other sources of vitamines, according to the scientists, but mothers are not in the habit of feeding large quantities of kidneys, liver fats, carrots, and yolk of eggs in order to obtain the fat soluble vitamines which is well and handily supplied in milk.

The production of evaporated milk from which part or all of the fat has been skimmed and vegetable oils substituted has nearly trebled in the last four years in this country. It is a business which thrives upon the dairy business, has its very foundation in the dairy industry, and yet one which, if continued, will work untold damage to it for the modified or imitation evaporated milk is being sold as the true product. In 1917 the output of imitation or filled evaporated milk was about 40,000,000 pounds. This increased steadily until in 1920 about 86,500,000 pounds were produced. In the manufacturing of this amount of condensed filled milk there was removed about 7,605,000 pounds of butter fat and virtually the same number of pounds of vegetable oils was substituted, since about 9 pounds of oil is used to each 100 pounds of evaporated product. This virtually destroys the market for about 7½ million pounds of butter fats. But its effect is much further reaching than that. It is a matter of vital concern to every dairyman in America.

When the manufacturer labels condensed filled milk in such a way as to show it is condensed skimmed milk and coconut oil instead of the whole milk containing butter fat they neglect to advise the public of one big factor, namely, that the very life of the milk was taken from it when the butter fat was extracted. Labels on cans of condensed filled milk products advise consumers to use it in the making of custards, cake, and general cooking and for use in coffee and cocoa. They do not state, however, that the milk is lifeless and does not carry the necessary ingredients for health of humans, particularly babies.

So important has become the issue that already four States have not waited upon the Federal Government to pass a law protecting the people, but have passed State laws prohibiting the manufacture of filled milk. These laws

are found in Wisconsin, Maryland, Ohio, South Carolina, and Florida, and bills have been introduced in New Jersey and Pennsylvania.

Mr. Clarke: Please state again what States have now passed such laws.

Mr. Silver: Wisconsin, Maryland, Ohio, South Carolina, and Florida, and bills have been introduced in New Jersey and Pennsylvania.

Mr. Clarke: But not in New York?

Mr. Silver: No.

Mr. Davis: Such a bill was introduced in New York but not passed.

Mr. Silver: I had not received that information.

Under the guidance of Hon. James Faust, director of the Bureau of Food at Harrisburg, Pa., an investigation was made on the way in which the product is offered to the consumer. Investigators, it is said, visited many retailers and asked what kind of condensed milk they carried. Almost invariably the imitation product, filled evaporated milk, was mentioned along with the well-known brands of condensed or evaporated milks. The cans occupied the same shelves and the public, we believe, does not differentiate.

It has been proven time and time again that the synthetic milk can not be manufactured which contains all of the ingredients of the pure product. Dr. E. V. McCollum, professor of chemical hygiene of the Johns Hopkins' University, has proven it in an exhaustive series of experiments with rats in which he fed food with vitamines and without. Other scientists have proven the same point. In fact, the value of vitamines in food rapidly is becoming recognized even by people who do not give much attention to either dietetics or science.

Coconut milk versus cow's milk. The only reason for the manufacturing of this product, filled condensed milk, is that it can be sold at a cheaper price. It is generally understood that when two products are believed by the public to be the same—and that applies generally to filled condensed milk and the regular condensed product—that the cheaper one will force the higher-priced product off the market. It is a significant fact that at the time when evaporated and condensed milk declined 50 per cent in 1920 from the high record of 1919 imitation condensed milk with the coconut oil and skimmed milk increased 24 per cent. The consumer

did not materially benefit by this substitute as the price asked was only slightly lower then than for the genuine health and growth producing condensed milk.

The dairy industry, of course, does not wish to see itself destroyed by a by-product. It does not require a long memory to remember the similar situation which occurred back [fol. 353] in 1896 when it became necessary to pass a filled cheese law for reason that the short-sighted manufacturers in this country filled their cheese with cottonseed and other oils and shipped them to Europe as well as selling them in the United States. It is claimed by those who have made a study of the dairy history of this country that the exportation of filled-cheese killed the cheese export business of the United States and that it has been difficult for this country to regain, with the exception of a short period during the war, any considerable volume of the cheese export trade.

Mr. Kincheloe: Let me ask you a question right there, Mr. Silver. Did that filled-cheese law prohibit the making and shipping of filled-cheese in interstate commerce?

Mr. Silver: It taxed it.

Mr. Aswell: It taxed it out of existence, and it was not labeled as this product is. There is no similarity between this case and filled cheese, because filled cheese was not labeled and it was taxed out of existence.

Mr. Clarke: And it was the foreign market that you refer to.

Mr. Silver: I was referring particularly to the foreign market, and how we lost rather than gained by using an article that was not a proper article for food.

Mr. Aswell: Mr. Silver, has it not been well established by practically all the best scientists in the country that the vitamin you speak of is found, or at least one-half of it is found in skimmed milk? Has it not been absolutely established that one-half of it is in the skimmed milk, and therefore you do not state the exact fact when you state that when you take the butter fat out you take all the vitamines out?

Mr. Silver: That is not my information. I have been told by good authority that in removing the cream from milk that you take with it 90 per cent of the fat soluble vitamines and that only possibly 10 per cent are still left in the skimmed milk. Even if 50 per cent of the fat soluble vita-

mines were left in filled milk, it does not alter our contention materially, for 50 per cent of the needed vitamines only means malnutrition, and filled evaporated milk is not proper food for young children or infants. We already have municipal laws stating the amount of butter fat which milk must contain. Although it may be the milk just as it comes from the cow, it still would be fooling the customer if it did not carry the proper amount of butter fat and vitamines. This prevents fraudulent sales of milk which is low in butter fat. This protects the consumers and makes it impossible for milk dealers to remove part of the butter fat, as is done in the case of filled condensed milk, and makes them sell the unadulterated, unmodified product.

Mr. Aswell: That is true, and it is also found in large quantities in all vegetable products.

Mr. Silver: Oh, yes; I make that plain here in my statement.

Mr. Aswell: But the fact of it is that one-half of it is left in skimmed milk.

Mr. Silver: I do not so understand it. If I am wrong——

Mr. Aswell (interposing): Your man McCollum, that you just quoted from, said so.

Mr. Silver: Well, he is good authority, but not the only source of information on this subject.

Mr. Clarke: Have you any statistics showing the volume of this product which enters into competition with the regular product?

Mr. Silver: I give here the number of pounds sold, and it would enter into competition to that extent. I do not know whether that fully answers your question or not.

Mr. Voigt: You will find the number of pounds manufactured for the last four years in the hearings. I put that in the last hearing.

Mr. Jones: Do they claim that there is a reduction in the production of pure condensed milk in 1920 as compared with 1919?

Mr. Silver: Yes; and compared with what would have been sold had this imitation not been parading as pure milk.

Mr. Jones: Was there a corresponding increase in the sale of pure butter, or was there a decrease?

Mr. Silver: I have not the pure butter figures here. I could get those for you and file them.

Mr. Jones: When they take the cream off this milk, they can take that cream and use it for butter or for any other product?

Mr. Silver: Yes; for ice cream or for various other things.

Mr. Kincheloe: Mr. Silver, let me ask you this question, as a general proposition, because I think you are a reasonable man, and I know you are representing a splendid organization.

Mr. Silver: Thank you, sir.

Mr. Kincheloe: And I am asking this solely for information. The reason I know about your organization is because I know you have a crackerjack organization in Kentucky. As I understand it, and as I say, I am asking simply for information. There is nobody who contends that taking the butter fat from milk and substituting coconut oil is detrimental to health? There is some nourishment in it, and it is not detrimental to health?

Mr. Silver: There is some nourishment in this imitation milk; it might not be detrimental directly, but if the user uses it expecting to get the very desirable and essential-to-health vitamines they have been fooled, and the child or the patient suffers by not having had that whilst the mother thinks proper food has been provided.

Mr. Kincheloe: But the pure food law already on the statute books will make them brand it showing just what it is.

Mr. Silver: The branding, as it is branded, and I am not quarreling about it or stating that they did not make an effort to brand it and tell the truth, but it does not convey to the consuming public the very injurious effect the use of it has upon children.

Mr. Kincheloe: What I was getting at, as a general proposition, was the province of this committee and of Congress. So far as I am concerned, I am not interested in the proposition of its putting the dairies out of business; the question is, Do you think Congress should go so far as to put one character of business out of commission simply for the benefit of the other one, when the business you are putting out of commission is not detrimental to human health?

Mr. Silver: If you carried that to the full extent and it puts the dairies out of business, you would destroy the human race, according to Dr. McCollum.

Mr. Aswell: We are not discussing putting the dairies out of business.

[fol. 354] Mr. Silver: I am talking about putting the dairies out of business; I am talking about this bill proposing to put the skimmed milk in the pig and calf trough where it belongs. That is the purpose of this bill, and that is what I am talking about.

Mr. Voigt: Will you pardon me just a moment there? This bill will not put the skimmed-milk people out of business.

Mr. Kincheloe: Not necessarily.

Mr. Voigt: It puts the substitute out of business.

Mr. Silver: That is the purpose of the bill.

Mr. Jones: Is it your contention, Mr. Silver, that the retailer sells this article when the customer calls for condensed milk?

Mr. Silver: They sell this article as milk; and the customer, in buying it, believes he is buying whole condensed milk, in many instances.

Mr. Jones: If that is where the trouble is, would it not be better to have a law, if one is necessary at all, to forbid the retailer selling an article of this kind for a milk product?

Mr. Aswell: That is the law now.

Mr. Silver: They sell it for a milk product, and the labeling on it does not convey to the buyer the effect that the use of this article in place of whole condensed milk has or the full effect of the use of it.

Mr. Jones: But if we embark here in Congress on a general plan of forbidding an article that is not deleterious to health, when it is branded just exactly what it is, there is no end to the different businesses that can be prohibited on that theory, because a great many of the food products are made from a combination of articles and that would be a pretty serious step.

Mr. Silver: So far as babies are concerned, that is hardly a fair way to state it; because if a mother uses it believing she is purchasing whole condensed milk that will sustain and nourish that child, but gets a substitute which fails to do that, and the child develops, as Dr. McCollum says, rickets or something else, and loses its health or is invalided, there——

Mr. Jones (interposing): Is not that a matter of education? We have now a public health department and we

have doctors and we have various systems of education in this country; and is it not better not to put out of business a legitimate line of trade but rather to educate the public in knowledge as to the difference in the various food products of the country?

Mr. Silver: Of course, we could have used the same argument in favor of liquor.

Mr. Jones: Liquor is not a food. I confess that if you come here with a proposition that any of these products are injurious, it would be a legitimate field for public law, but if you come before the committee with a proposition which confessedly is not injurious but simply is not as meritorious as some other lines of food——

Mr. Silver (interposing): Nutritious.

Mr. Jones: Nutritious, to put many of the food products out of business.

Mr. Silver: Is not malnutrition as a matter of fact injurious when used as we would illustrate by the mother using it for the child?

Mr. Jones: Of course, I am in favor of any law that will do away with deception and will correct the evil of deception, but just simply because some deception happens to be used by a retailer, to put the legitimate line of business out of commission is not the way to arrive at this situation.

Mr. Silver: To my mind the child is more important than the business. I believe that we should protect and fully protect the buying of foodstuffs so that the buyer does know what he gets. The law does not and should not permit anything to be substituted for the genuine and sold as genuine.

Mr. Jones: That is exactly right. There is no question about that being correct, but you are not asking for a law which will advise the public as to what they are buying, but you are asking for a law which prohibits the sale of certain articles. If the law is drafted here so that it will thoroughly advise the public and will make all those who are dealing in these products, if they are not doing it, state exactly what they are and exactly the effect, it would seem to me to be all right.

Mr. McLaughlin of Michigan: Are you familiar with the labels that are used on these products?

Mr. Silver: I have seen some of them.

Mr. McLaughlin of Michigan: Have you taken up that matter with the Department of Agriculture to see whether

or not they are entirely in keeping with the law relating to labels?

Mr. Silver: I do not know that I have discussed with them keeping within the law. Our thought was along the line of whether the public was being fooled in the use and whether it is a substitute that was harmful in its ultimate effect rather than just complying with the law.

Mr. McLaughlin of Michigan: There are several ways of looking at this proposition. One is to look at the label and see whether any deception is used, whether all the information with regard to everything is on the label. It would seem to me to be very important to take up that matter with the Bureau of Chemistry and see if the law is being violated in that respect and if the law could be strengthened in that respect.

Mr. Silver: That is important.

Mr. McLaughlin of Michigan: That is one feature.

Mr. Silver: Yes, sir.

Mr. Kincheloe: If you take the butter fat out of milk and take the skimmed milk and substitute coconut oil, if that should be forbidden, then ought not we go a step further and forbid the sale of coconuts entirely? The point I am making is, you think it is a good policy for Congress to embark on a proposition to put a certain food out of business that is really not detrimental to human health, although it is not as nutritious, of course, as the pure milk. It seems to me that this bill is asking Congress to put what is really a legitimate business out of business. I do not think anybody contends that skimmed milk as a substitute with coconut oil is detrimental to health; it is not as nutritious as pure milk; that is true.

Mr. Clarke: The point that Mr. Silver is making is that this substitute is bought by the ignorant mothers.

Mr. Kincheloe: I am just asking for information as to the policy that Congress is asked to undertake of putting a real legitimate business out of business.

[fol. 355] Mr. Silver: In the absence of any law it is possibly legitimate, but it should be wholesome food. Why not label it as modified coconut oil and see how many users there would be?

Mr. Voigt: You are aware of the fact that there are millions of people in this country who can not read a label, and the fact is that this substitute is bought largely by the ignorant and the foreign element in the country.

Mr. Silver: They buy it, but there are lots of people who can read who do not realize the effect of taking out the butter fat; they do not realize that the effect is harmful.

Mr. Jones: Conditions indicate, perhaps, a shortage of meat in this country or that there will be soon, and maybe a shortage of milk, and if it should develop, for instance, that you put all of these out of commission, all of these products that take a part of milk in their make-up, and there are numbers of them besides that; suppose you put all of those out of commission and force people to use pure milk and nothing else, if there should be a shortage would not the people of this country be worse off in having nothing rather than taking these substitutes?

Mr. Silver: I know of no better way to bring about a shortage of milk than to sell substitutes for milk that do not fill the place at a less price than milk can be produced for; also meat, for dairy cows produce calves, thereby taking care of the future.

Mr. Jones: Do you think that there would be a sufficient quantity if we did not use any substitute at all?

Mr. Silver: There has always been an abundant supply.

Mr. Jones: I am asking these questions for information. If you did not have any substitutes to be made from the skimmed milk, what would you do with the skimmed milk?

Mr. Clarke: Feed it to the hogs and raise the calves.

Mr. Aswell: Is that economy?

Mr. Clarke: Yes, sir.

Mr. Voigt: Up to five years ago we did not have any substitute for milk. This industry only began five years ago, and before this product came on the market the farmers used the skimmed milk.

Mr. Jones: You claim that the American people were better fed before that time than now?

Mr. Voigt: The farmers had no difficulty before the substitute came on the market in disposing of their skimmed milk; they fed it to the hogs.

Mr. Silver: In answer to your question, I do not think that we should take any chance with what we feed to the babies of this country. Pigs and calves can use skimmed milk to advantage.

Mr. Jones: I thoroughly agree with you.

Mr. Silver: Where they put back proper fats and make a useful and valuable animal food out of this skimmed milk, there is no objection, but to fill in some food that is bad

for the babies to eat and sell it for that purpose is something, I think, which should not be countenanced.

Mr. Jones: I agree with you. The only question that is bothering me is whether or not this bill goes at it properly, whether it would not be better to prohibit the sale of an article or to safeguard the sale so that there would be no deception. Do you not think if we could find a system of safeguarding the sale so the public would know exactly what they were getting it would be better than to interfere any more than necessary with any businesses that are not detrimental to health and on the other hand might still have some nutritious value?

Mr. McLaughlin of Michigan: May I make a suggestion? This seems to be more of a legal proposition than anything else. There is no doubt that there is deception in the sale of these goods. The question is how far may the Congress legally go to prevent the deception.

Mr. Jones: And how far they should go?

Mr. McLaughlin of Michigan: How and where. I would suggest that Mr. Silver be permitted to conclude his statement that he has prepared and that then we seek information from those who can enlighten us on the legal proposition.

Mr. Jones: All right.

Mr. Silver: In June, 1896,——

Mr. Clarke (interposing): What year was that?

Mr. Silver: In 1896. Congress found it desirable to pass a filled-cheese law placing a tax upon the manufacture of this product and also upon the dealers and a coupon tax of 1 cent per pound on the product. It also required that all filled cheese be labeled and sold as such. The law has nearly administered itself, for the filled-cheese industry in this country soon became a matter of the past.

This law was effective in all of the States, whether the product was sold interstate or intrastate, for it was a tax on the product. Any legislation which proposes to prohibit the manufacturing and selling of filled milk by the Federal Government, it must be remembered, will not be effective in intrastate trade and manufacturers may be expected to set up establishments for trade within the States. To meet this situation a number of States already have passed laws prohibiting the manufacture of filled milks. In Wisconsin, where there *there* are now five factories manufacturing filled condensed milk, a law has been

passed in the past few weeks prohibiting its manufacture. Ohio, South Carolina, and Florida have laws prohibiting its sale, and Pennsylvania has asked for such a law. Strenuous efforts have been made in the State of Washington to have a law passed, but to date I believe they have been unsuccessful.

I do not believe it is necessary for me to take time to impress upon you the magnitude of the dairy industry in this country. You also appreciate the enviable position which dairying occupies in the maintenance of soil fertility and a well-rounded agriculture. The farmers, and particularly the dairymen, are very insistent upon some legislation which will make it as difficult to sell filled condensed milk in this country and abroad as it has been of recent years to dispose of filled cheese.

Mr. Aswell: I should like to read just a paragraph from a letter which I have received. This letter is from Mr. John W. Morey, of Denver, Colo. He refers to the bill and says:

When this bill comes up for consideration before your committee we would very much appreciate your bearing in mind the following objections to its enactment.

Then he gives two objections:

1. The present food and drugs act is a general food law covering all articles of food. It has stood the test since 1906, and in our opinion its provisions are adequate to protect the public from impure or unwholesome food of all kinds.

[fol. 356] He refers to the other bill that we passed.

If amendments are to be passed changing or supplementing the provisions of the act, covering individual items, the meaning of the original act will be obscured and its effectiveness will soon be destroyed.

2. Many wholesome foods, properly prepared and plainly labeled to indicate what they are, are now being manufactured and sold. These foods do not contain any ingredients harmful in any way to the consumer and no one is deceived as to their contents, as each package is plainly marked in accordance with the provisions of the food and drugs act. But under the provisions of the above bill the

manufacture and sale of such articles, as far as milk products are concerned, would be absolutely prohibited, thus depriving the housewife of such products, which are now extensively used. A provision of this kind is bound to increase the cost of manufacture of milk products, and the consumer will be the principal sufferer.

Mr. McLaughlin of Michigan: Is he right in saying that there is no deception in the sale and use of this product?

Mr. Aswell: I would say that individual dealers might deceive, but it is the purpose of the pure food and drugs act to punish them, that is what the act is for.

Mr. McLaughlin of Michigan: If the label contains all that the present law requires.

Mr. Aswell: It seems to me the fault lies not in the fact that a lot of people can not read, but lies in the fact that the pure food and drugs act is not enforced against the dealers.

Mr. Voigt: The pure food and drugs act can not be enforced against a retail dealer in a State, because the jurisdiction of the United States no longer attaches to the goods.

Mr. Aswell: Each State should enforce the law within its boundaries.

Mr. Voigt: What is the gentleman's business, will you just state?

Mr. Aswell: He is connected with a mercantile company.

Mr. McLaughlin of Nebraska: I have received a ton of such letters.

Mr. Aswell: I have, too. This seems to me to be a fair statement.

Mr. Jones: A number of businesses have been helped by virtue of discovering a number of different products. For instance, the peanut industry has been helped greatly by finding an infinite variety of products that could be made out of it by mixing other things with it. Do you think that there is danger, if you prohibit all articles that are made from milk from being made that you may do just the opposite of what you are trying to do?

Mr. Silver: You make a very general statement, but confining it to the subject under consideration it certainly does not help the dairyman by giving him competition with what you might call a fake product at a less price. You do not help the rising generation by feeding them on food that develops rickets.

Mr. Jones: If there is some deleterious effect, that brings up a different proposition, but there does not seem to have been any contention heretofore that this food was injurious.

Mr. Sinclair: Dr. McCollum testified on that.

Mr. Kincheloe: I do not know whether it does. If it does injure, it is a violation of the pure food and drugs act, which is already on the statute books.

Mr. Silver: But the trade is being supplied without hindrance and we want something to prevent the public from being imposed upon.

Mr. Kincheloe: Evidently, the chemists of the Agricultural Department and the Department of Justice do not think it is detrimental to human health. If they did, they could stop it by prosecution.

Mr. Aswell: Is it not a fact after all that it is not an injurious product and the purpose of this bill that you are discussing this morning is to remove competition from the dairy business; is not that the real object, and would you have Congress do that?

Mr. Silver: I would call your attention to the filled cheese act, which Congress passed. If you permit the use of substitutes that injure the rising generation——

Mr. Aswell (interposing): Please show how, when they are informed of what they are getting?

Mr. McLaughlin of Nebraska: That question of whether it is injurious has been answered by Dr. McCollum.

Mr. Aswell: Perhaps some of us do not agree with him.

Mr. Kincheloe: If you take Dr. McCollum's testimony as a whole, the adult or the infant who does not drink at least a quart of milk a day is not as healthy as somebody else.

The Chairman: Mr. Silver, we are much obliged to you.

I have a telegram from Mr. LaFayette B. Mendel, in which he says that he can not be here; he submits a statement.

Mr. Kincheloe: Who is that from?

The Chairman: It is from Mr. L. B. Mendel.

Mr. Aswell: I should like to have it read, if there is no objection.

Mr. Kincheloe: I should like to hear it read.

Mr. Clarke: It is a letter addressed to me.

Mr. McLaughlin of Michigan: I will read it.

New Haven, Conn., July 3, 1921.

Hon. John D. Clarke, Washington, D. C.

DEAR JOHN: I have just received a telegram from Mr. Haugen inviting me to appear at a hearing on the "filled milk" bill before the Committee on Agriculture next Wednesday morning. I am about to leave New Haven and have engagements which will make it impossible for me to attend the hearing. I believe that you are a member of the committee, hence I take this personal method of presenting my protest against what appears to me to be an unnecessary, unwise, and undesirable piece of legislation.

Not long ago, in response to an invitation from Hon. Frank Smith, acting chairman of a committee of the Pennsylvania senate sitting to consider a similar bill, I sent a formal statement of my views, giving the reasons which seem to me to be scientifically tenable in opposition to the proposed interference with the sale of properly labeled wholesome milk compounds. Unfortunately, I am away from my letter files and can not send you an exact copy of my statements. Probably some of the persons interested in the outcome of the hearing have secured copies which will be available to you. I have no reason to change my views as already expressed.

The situation is somewhat as follows: The investigations of recent years have demonstrated that in addition to the usual nutriments, proteins, fats, sugar, and salts, milk contains properties now described as vitamins. One of these is abundantly associated with the milk fats, as was first demonstrated by McCollum and by Osborne and myself several years ago. It is frequently called fat-soluble vitamin A. It is not universally present in foods and it is essential to the welfare of growing individuals. It is found in eggs, in green vegetables, in various animal fats—rarely in those of vegetable origin as they are prepared for the market. Every physiologist admits that growing children should have some quota of vitamin A; how much is needed is not definitely known. For infants the preferable supply admittedly is whole milk. However, McCollum is authority for the statement that approximately half of the vitamin A is present in the nonfat part of the milk, that is in skim milk; and another competent scientific investigator, Prof. Sherman, of Columbia has announced that skimmed milk furnishes important amounts of vitamin A. I inclose a

copy of their published statements which I happen to have at hand.

Preparations of so-called "filled" milk are emulsions of vegetable fats in skimmed milk. Coconut oil is commonly used, I believe, in preparing them. These facts are ad- [fol. 357] mittedly digestible and nutritious; so is skimmed milk which owing to fostered prejudices has been a greatly undervalued article of diet. The milk compounds should be properly labeled—as should every package of food—to tell the truth. They should not be recommended for use in infant feeding; on the other hand no harm can come from the chance use of a quantity of skimmed milk even by infants. I mention this because the opponents have spread the impression among gullible persons that the use of a can of milk compound is a positive menace to the infant which consumes it. Skimmed milk is not a rank poison. It is merely not a complete food for an infant; neither is barley water nor "prepared foods."

I am informed that some of the milk compound packages and advertisements not only give the composition of the contents but specifically indicate in words that the product is not recommended for infant feeding. What, then, shall we say of the value of the milk compounds, properly marketed in conformity to the pure food laws, for adult nutrition? I do not see how they can be designated otherwise than as wholesome food. Indeed, it would be a nutritional advantage if skimmed milk were used more widely in culinary practice. It greatly enhances the value of cereals, notably the "staff of life," bread. "Filled" milks enrich them also, adding wholesome fats. No one knows at present to what extent vitamin A may be required by adults; but in any event the latter, using the mixed diet of adult life, are not dependent on cream for this food factor. It is quite as reasonable to object to the sale of polished rice or patent flour; indeed, skimmed milk and its "compounds" surpass either of these foods in nutritious properties.

The opponents of "filled" milk (representing a special industry) have tried to exclude them on the plea of "menace to public health." No public health question is involved. The claim is a specious one. The House bill represents a fight between industrial "interests," and I am confident that the medical profession would not admit that any wholesome food is a menace. Life and health

are not endangered; on the contrary, I have long believed that our national nutrition would be benefited if, instead of discarding the milk separated from cream in the butter industry—instead of converting a unique food into roof paint, etc., etc.—we encouraged the greater use of the nonfat part of the milk in the kitchen in the preparation of food. The milk compounds represent a device for conserving food exceptional with respect to protein, vitamins, and particularly salts of lime which so few natural foods contain and which many persons really need. The by-products of butter production should be conserved. Has not agriculture been blinded to the importance of nonfat parts of milk for nutrition? Are you ready to sanction economic waste of food by a new form of prohibition on the invalid plea of harmfulness to children, who do not make use of the product?

I have been appealed to by many persons of divers interests in connection with this important measure. I regret that I can not attend the hearing in the interest of what I regard as right and just. This letter is addressed to you because I know John Clarke and am willing to have him present my testimony.

Very truly,

Lafayette B. Mendel.

Attached to the letter is a typewritten paper entitled "Evidence that skimmed milk contains fat-soluble vitamin A."

Evidence That Skimmed Milk Contains Fat-soluble Vitamin A

Simmonds, Steenbock and I (McCollum, Simmonds, and Steenbock, Proc. Am. Soc. Biol. Chemists, December, 1916; J. Biol. Chem., March, 1916) have found that the fat-soluble dietary essential is appreciably soluble in water, and that repeated washing of butter fat with distilled water removes from it the substance which is responsible for its peculiar effect in the diet. The water solution of the nonlipoid constituents of milk, therefore, contain this substance, indeed, in considerable amount. Recent experiments lead us to believe that approximately half of the fat-soluble dietary essential is present in the fat and half in the nonfat portion of the milk. It is, therefore, approximately thirty times as soluble in butter fat as in water.

(E. V. Collum, Jour. Am. Med. Assn., May 12, 1917, 68, 1379.)

Distribution of the substance or substances "vitamin A" between the fatty and aqueous phases in milk.—Several years ago McCollum stated in a brief note that fat soluble A is about thirty times more soluble in fat than in water, in which case skimmed milk will contain about half as much of this vitamine as whole milk. On the other hand, Mellanby, studying experimental rickets in puppies, and Hess and Unger in their studies of the clinical rôle of fat soluble vitamine, appear to have assumed that their experimental diets could contain considerable amounts of skimmed milk, either in fluid or solid form, and still be nearly devoid of the fat soluble vitamine. According to our experience, skimmed milk contains a very significant amount of fat soluble vitamine, probably about half as much as whole milk as McCollum's brief statement would imply.

Our experimental evidence of the presence of significant amounts of fat soluble vitamine or "vitamin A" in skimmed milk is two-fold. (1) Young rats placed at weaning upon a diet in which dried skimmed milk was the sole source of vitamines have grown steadily (though at less than the maximum rate) for three months or more, trebling their body weights and remaining free from eye disease and in good general condition. Such results in rats of this age can be obtained only on diets furnishing significant amounts of "vitamin A." (2) Rats which had been brought to the typical condition of declining body weight and characteristic eye disease due to deficiency of fat soluble vitamine in their food have been cured by the feeding of skimmed milk powder. (A third type of experiment may be mentioned which, while it would not be conclusive alone, affords interesting confirmation. Rats which have failed to grow upon a diet of white bread, grew with extraordinary rapidity for some time (though not to full adult size) when the bread was supplemented by dried skimmed milk only. The latter of course supplemented the bread in several ways, but unless the skimmed milk had furnished important amounts of fat soluble vitamine such rapid and extensive growth would hardly have been possible.) (H. C. Sherman, F. L. MacLeod, and M. M. Kramer, Proc. Soc. Exper. Biol. and Med., 1920, 18, 41.)

All the fat-soluble A content of milk is not present in the fat (see McCollum, 1917), but no accurate data are

at present available from which it is possible to make any trustworthy calculation of the amount of this factor present in the quantity of separated milk (250-350 c.c.) given in the foregoing diet. (Helen M. M. Mackay, Biochem. Jour., 1921, 15, 19.)

The Chairman: Mr. Davis, how many are there present who desire to be heard this morning?

Mr. Davis: Mr. Chairman, there are several of us here. There are at least five of us who would like to make some remarks to the committee.

The Chairman: How much time will be required?

Mr. Davis: I think we should like at least a couple hours to present our case. We might say to you, Mr. Chairman, that we did not get our notice until yesterday morning. It was sent out Saturday afternoon and, due to the intervening holiday, none of us was in position to get the telegram.

Mr. Clarke: But in the meanwhile you had been preparing yourself because you knew of these hearings.

Mr. Davis: Yes; but we thought we would get a little more notice than we did. However, we are here and ready to go as far as we can.

Mr. McLaughlin of Michigan: Will all the gentlemen speak along the same line and to the same effect? If so, why not select some one man and let him make the statement. We have a lot of work to do and while you gentlemen will be given every opportunity to present your case, we feel, and we are justified in that feeling by our experience, that time is unnecessarily taken by gentlemen coming before us and saying the same thing over and over.

Mr. Davis: We will try not to repeat.

Mr. McLaughlin of Michigan: If there are different points involved in this question, let one take up one point and another another, and so on, and not take up your time unnecessarily and ours also.

The Chairman: Let us get this question of notification straightened out. The committee decided on Saturday to hold hearings to-day; the gentlemen were telegraphed on Saturday and still fault is found because they were not advised about the hearings.

Mr. Clarke: I confess myself that I have no patience with that sort of alibi.

[fol. 358] Mr. Holman, of National Milk Producers Federation: Mr. Chairman, our people would like the privilege of completing our testimony at some time that is suitable to the pleasure of the committee. There have been a number of references made here to the Pennsylvania surveys but up to the present time there has been no statement made here on that survey, and we are prepared to introduce that into the evidence. We also wish to introduce certain scientific testimony.

The Chairman: For or against the bill?

Mr. Holman: We are the proponents of the bill.

The Chairman: A day has been set aside for the proponents of the bill.

Mr. Voigt: I will say to Mr. Holman that I intend to ask for more time for the proponents and possibly also for the opponents of the bill. We will see how we get along this morning.

Mr. Jacoway: Mr. Chairman, Mr. McLaughlin of Michigan I think has voiced the sentiment of this committee. The gentleman who just spoke said there would be five or six witnesses, and it occurs to me that one of those witnesses could be charged with the duty of presenting their case to this committee.

Mr. Aswell: Did we not do that with the proponents?

Mr. Jacoway: If that could be done I think it would be in accordance with the wishes of the members of the committee. We are all busy, and while I do not want to cut off a single scintilla of this testimony I do want to conserve all the time I can, and I am going to ask you if one man can not present your case here and get it before the committee as well as five men.

Mr. Davis: I do not think so, sir. I do not think that question was asked of the proponents of the measure, and I do not think they were held down to that method of procedure. I know that I can not. I have something that might help the committee in arriving at a decision, and I know that Dean Hayward, who is here, and who is experienced on the scientific and business end of this matter, can present his views which will be helpful to the committee, and I know that Mr. McKee is here and has traveled all the way from Chicago, leaving there yesterday, and has just this minute come in, and is here to set forth the business end for the opponents of this measure. We do not want to burden the committee. We do not want to talk

any more than we have to, and we do not want to take up your valuable time, and ours is also a little valuable, but we would like an opportunity to present our views.

Mr. Kincheloe: I have no objection to hearing these gentlemen, Mr. Chairman, but I thought it was going to be the policy of the committee to conduct the hearings this morning from 10 o'clock until 12.

Mr. Voigt: Mr. Davis, I do not think all of your people can be heard to-day, and I would suggest that you call first those who have come the longest distances.

Mr. Davis: I will be glad to do that, Mr. Voigt.

May I introduce, Mr. Chairman, Dean Harry Hayward, formerly assistant professor of dairy husbandry at the Pennsylvania State College, formerly assistant chief of the dairy division of the United States Department of Agriculture, formerly dean of the department of the school of agriculture of the Delaware College, a practical manager of dairy farms for 15 years, a director of the College of Agriculture, American Expeditionary Forces, and now agricultural advisor to N. W. Ayer & Son, of Philadelphia, in the business of advertising the Hebe Co. products.

Statement of Mr. Harry Hayward, of Philadelphia, Pa.

Mr. Hayward: Mr. Chairman and gentlemen of the committee, it seems to me this bill brings up two primary points; one is its effect upon the public health, which has been discussed pro and con here this morning. From my point of view as a student of dairy subjects for the past 25 years, I am at a loss to see where these substances, milk compounds, have any detrimental effect upon the public health. I happen to represent in our house one of those compounds, namely, Hebe, and I speak for that one particular brand. It is very carefully labeled. You are all familiar with the label. They state plainly, "Not to be used for infants in place of milk."

Mr. Voigt: Let me interrupt you there. Do all the manufacturers of this same product state that on their labels?

Mr. Hayward: I am not familiar, Mr. Voigt, with the other products. I refer only to this one compound with which I am familiar. It seems to me that Dr. McCollum has stampeded this country upon this particular subject. We all know that the Government has spent thousands of dollars trying to encourage the use of skimmed milk in

every practicable way. We all know that skimmed milk in itself is a good food, and the trouble has been we have been unable to get the people to use it as much as they should.

We all know that coconut fat is consumed by the thousands of pounds by the consuming public in the form of oleomargarine and nut margarine. So it takes a stretch of the imagination to see how the compounding of these two substances, which form a source of diet for the American people, can be detrimental to the health. I grant that they might be if they were used exclusively for young, unweaned infants; but I have attended a number of these meetings in the different States and I have yet to find a single instance brought forward in the evidence where these compounds were being used exclusively for the diet of children.

We have consulted with some of the best baby dieticians in the city of Philadelphia. I have one in mind, Dr. Griffith, and he says that if a child was inadvertently fed this compound, it would not be injurious to the health, even if fed for a month or a little longer than that; that only by long feeding would this substance be injurious to the child.

Mr. Clarke: Have you any letter or statement from him as to that matter which you could incorporate in the record?

Mr. Hayward: Have we a copy of Dr. Griffith's letter here, Mr. McKee?

Mr. McKee: Yes.

Mr. Hayward: We have a copy of Dr. Griffith's letter here which will be incorporated in the proceedings of the hearings.

Mr. Voigt: May I ask you a question right here? I understand with reference to the product put out by the Hebe Co. that they have not always put on the label this [fol. 359] phrase: "Do not use in place of milk for infants."

Mr. Hayward: I am not familiar with this product except for the past 18 months. During that time I understand it has been put on. Mr. McKee, who is a member of the firm, will bring up that point later on.

May I read, Mr. Chairman, the letter from Dr. Griffith, of Philadelphia?

The Chairman: Yes.

Mr. Hayward: This is a letter addressed to Senator Frank A. Smith, chairman of the committee on public health and sanitation, senate chambers, Harrisburg, Pa.:

My Dear Mr. Smith: In answer to your telephone request received to-day regarding the possible harmfulness to public health of a product composed of skimmed milk, fortified by coconut fat, I might say as follows: Whereas I have never been much of a believer in the administration to infants of any canned food of any kind whatever, I can see no possible reason why such a product should be excluded rather than certain others, particularly as I see, at least on one of the products, that it is distinctly stated in plain words upon the can that it is not intended for infant's use. Even should it, through any mistake or willful perversion on the part of the mother, be given an infant, I can not see why its employment in this occasional and, as one might say, accidental way should be productive of any harm. Any conceivable harm that could occur could only come from the continued use over a long period as an exclusive diet of a product of this sort. Olive oil and other vegetable oils have often been given to infants as a food, and, in fact, have even formed a staple constitutent of some prepared foods or special milk mixtures.

With regard to any particular influence which butter fat will have in the prevention or cure of rickets as seen in infants, I have some very positive opinions, drawn from long personal experience as well as from reading of medical literature. It has never been satisfactorily proven that butter fat, merely because it is an animal fat, will prevent or cure rickets. The experiments of Mellanby in England have been by no means universally accepted there or in this country. Twenty or more years ago it was the custom of physicians to give infants mixtures which were rich in butter fat, and the claim was made even then that an abundance of fat would prevent the production of rickets. Experience, however, showed that many infants could not tolerate much butter fat, and then even those who could developed rickets just as easily and as frequently as they did in a later period, when it was the custom to give milk mixtures with a low fat percentage. In recent years there has been a reversion to a feeding with high-butter fats, but even those who have been giving these mixtures admit that they do not prevent the development of rickets.

The well-known favorable action of cod liver oil in the prevention and cure of rickets seems to belong to it alone, so far as infants are concerned. Other animal fats do not share in the characteristic.

Yours, very truly, J. P. Crozer Griffith.

Mr. Clarke: What is the date of that letter?

Mr. Hayward: April 11, 1921.

Mr. Voigt: I want to call your attention to a can of Hebe on the table here which has not the designation on it that it shall not be used for infants.

Mr. Hayward: Yes; I understand that in the early stages of the manufacture of this product that was not included, but that it has been included for some time past. I am not familiar with the date when that change was made.

Mr. Voigt: A bill to prevent the manufacture of this compound, I understand, was passed by the Assembly of Pennsylvania.

Mr. Hayward: I understand so.

Mr. Voigt: And was killed in the senate committee?

Mr. Hayward: I understand so.

Mr. Voigt: And I also understand that the chairman of the senate committee is a dealer in this product.

Mr. Hayward: I do not know what his official capacity is. Mr. McKee knows that specifically.

Mr. McKee, secretary of the Carnation Milk Products Co: May I answer that question?

Mr. Aswell: Mr. McKee, you can explain about that label and when it was changed?

Mr. McKee: That label was changed, I should say, 15 or 16 months ago. That can which you have there unquestionably is a can that was on the shelf of the dealer for some time, that he has not been able to move.

Mr. Voigt: I will state that this can was bought from a retailer in April, 1921.

Mr. McKee: That may be, and he probably has had the stock on his shelves for some considerable time and has not been able to move it. I think that is true of a great many lines of merchandise during the past year, particularly with reference to agricultural products.

Mr. Hayward: Mr. Chairman, continuing, I may say that I have attended a number of these meetings and at none of them has any evidence, to my knowledge, been brought

forth which shows that this material—I refer to Hebe now, because I am more familiar with that—not a single instance where it has been used as food for infants. A number of investigations have been made through the Visiting Nurses' Association of Philadelphia, and they have not found a single instance where any of these products have been misused.

Mr. McLaughlin of Michigan: What do you mean by that—that you could not find a mother who had used this for her baby?

Mr. Hayward: To my knowledge, we did not find a single mother who was feeding a baby upon these compounds.

Mr. McLaughlin of Michigan: How could you expect to find one? You would have to visit every home where this article had been bought.

Mr. Hayward: The Visiting Nurses' Association have visited a great many homes, and I base my statement upon their reports.

Mr. Clarke: You say the Visiting Nurses of Philadelphia?

Mr. Hayward: Yes; the Visiting Nurses' Association.

Mr. Jones: May I ask you a question? Where do you get your skimmed milk?

Mr. Hayward: I believe this company has eight different plants on the Pacific coast and in Wisconsin.

Mr. Jones: Do they get the original milk and remove the butter fat?

Mr. Hayward: Yes.

Mr. Jones: What do they do with the butter fat?

Mr. Hayward: It is made into high-class butter.

Mr. Jones: Then they do not waste any of the substance of the milk in making this product.

Mr. Hayward: Not to my knowledge; no.

Now, Mr. Chairman, if these products were fed to infants, from my knowledge of dairying, I would not be here to-day opposing this bill, but I believe in my own mind that there is no menace to public health in these products. [fol. 360] The other main question to my mind is an economic one, and I feel that that is the real crux of the whole situation and is one which has not been brought out to any great extent in the hearings which I have attended.

In the history of dairying the world over it has always been a problem to take care in a satisfactory way of the by-products. To my knowledge, in this country, in the oldest

settled part of the country, in the early days the skimmed milk was fed to pigs and cows. The next step was making skimmed milk into casein, which was used in finishing paper and in glue and in various other products of that kind, but the farmers were paid a very low price for the skimmed milk or for the product casein, and the next step was soft cheese of various kinds, pot cheese being the most common one; and, finally, after a great deal of experimentation, this way of utilizing skimmed milk has been brought out, and the farmer to-day is getting more for his skimmed milk in the form of milk compounds than in any other way.

At the hearing I attended in Wisconsin, which, I think, was early in May, I heard one dairyman get up and say that the skimmed milk was the profit they got for their milk in dairying; that the butter fat paid for the cost of production, and the skimmed milk was the profit, and the more they got for the skimmed milk the greater profit they made.

Mr. Voigt: That gentleman represented simply an isolated case. You understand that the dairying industry in general is opposed to the manufacture of this substitute?

Mr. Hayward: That may have been an isolated case, Mr. Voigt, but there were two or three men representing a great number of dairymen in Wisconsin that made that statement.

Mr. Aswell: They are not opposed to getting a better price for their skimmed milk.

Mr. Hayward. Not at all, and at the present time the compound-milk manufacturers are paying about 67 cents a hundred pounds for their skimmed milk, take it or leave it.

Mr. Voigt: Allow me to interrupt you there. I know something about the gentleman you refer to as having appeared in Wisconsin before the committee. I think he was a man who was in the employ of the Hebe Co.

Mr. Hayward: I do not know about that.

Mr. Voigt: I am so informed.

Mr. Aswell: Mr. McKee could answer that.

Mr. McKee: I would like to make that correction. He was not in the employ of the Carnation Co. or the Hebe Co. That statement was made by Mr. Harris, of the Wisconsin Butter, Cheese & Egg Co., of Elk Horn, Wis. The same statement was also made by Mr. Hedden, vice president of a condensed milk company.

Mr. Voigt: Is Mr. Harris an actual farmer?

Mr. McKee: Mr. Harris is in the manufacturing business, manufacturing evaporated milk and milk compounds.

Mr. Voigt: Then he is not a dairyman.

Mr. McKee: I did not get the question. That statement was made by a farmer, Mr. Brownlee.

Mr. Hayward: The point which I wanted to bring out was that the dairymen who were supplying their skimmed milk for milk compounds were being paid at that time 67 cents a hundred pounds for their product, take it or leave it, and the testimony brought out that 80 per cent were leaving it at that price. Now, that is about four times the feeding value of skimmed milk. It is an old rule that skimmed milk is worth one-third the price of a bushel of corn and a bushel of corn has been selling lately for 45 cents, so that skimmed milk on that basis is worth 15 cents, whereas these men were getting 67 cents a hundred pounds for their skimmed milk.

Mr. Ten Eyck: In other words, 100 pounds of skimmed milk is worth one-third of a bushel of corn?

Mr. Hayward: Yes; that is what I meant exactly.

Mr. Voigt: You do not want to put this committee under the impression that there is any considerable number of dairymen in this country who favor the manufacture of this substitute?

Mr. Hayward: I want to put the gentlemen of this committee under this impression: That the dairymen who are so fortunate as to be able to get 67 cents a hundred pounds for skimmed milk at this time are not opposed to this product.

Mr. Voigt: You understand that all the dairying societies and all the farming organizations of the country are opposed to the manufacture of this substitute?

Mr. Hayward: I fully realize that the dairymen who are being hit, perhaps, by the competition of these products are fully against it, but I have yet to hear of dairymen who are so situated that they can sell their skimmed milk for 67 cents a hundred pounds opposing these products.

Mr. Clarke: The Meridale farm in Delaware County, N. Y., in my district, belongs to your company.

Mr. Hayward: Yes.

Mr. Clarke: Do you know what they are paying for skimmed milk now?

Mr. Hayward: No, I do not. They are making skimmed milk powder, and I do not know what they are paying for it, Mr. Clarke. They are getting it, if course, as cheap as they can.

Mr. Voigt: Mr. Hayward, let me ask you this question: The men who manufacture this substitute do not pay the farmers any more for their milk than the people who make the straight condensed milk or the men who make butter?

Mr. Hayward: I understand, Mr. Voigt, that the manufacturers of these compounds have got to pay more for their butter fat and skimmed milk than they would pay if they made butter alone, and that these compounds are offering a market for the skimmed milk.

Mr. Voigt: Are the manufacturers of this compound paying any more to the farmer for his milk than the man who makes straight evaporated milk?

Mr. Hayward: I do not know. I presume not. I should not think he would.

Mr. Voigt: Then I fail to see how the fact that this compound is made will benefit the farmer.

Mr. Aswell: It gives him a wider market.

Mr. Hayward: It gives a wider market for his skimmed milk. Here is the situation: The highest price for milk is paid in liquid form where it goes into the direct channels of consumption in the cities. The next highest price is [fol. 361] paid by condenseries, and I suppose I would include in that class the manufacturers of milk compounds. The next highest price is paid for butter making and the next highest price for cheese making.

Mr. Voigt: If your argument is a good one, I fail to see why all the dairying and farm organizations should not come up here and favor this compound, because, according to your view, it would be money in their pockets.

Mr. Hayward: No, sir; because the dairymen who supply milk to the condensers would have no advantage in coming here. They are now supplying as much milk as the compound manufacturers are buying. As for the butter makers, who are being hit by this competition, if they should come here and be in favor of this bill, and I understand they are——

Mr. Voigt (interposing): Do you understand that the butter makers are in favor of this bill?

Mr. Hayward: They are in favor of this bill; yes, sir; for the reason that some of these compound manufacturers

can pay higher prices for their milk than the butter makers can, and they can have the skimmed milk back on the farm for feeding to the cows.

Mr. Voigt: Then, if your argument is correct, the dairymen throughout the country, in order to get better prices for skimmed milk, should all join in favor of a large production of this sort?

Mr. Hayward: I do not think that is stated correctly, for the reasons that I have given.

Mr. McLaughlin of Michigan: Where does a company like yours get its raw products? Does it buy the whole milk?

Mr. Hayward: It buys whole milk. I am an advertiser for this product, Hebe, and I can not speak by the book on that phase of it, as some members of the firm could, but my understanding is that they buy whole milk, out and out.

Mr. McLaughlin of Michigan: Then they are directly in competition with the creameries which have to buy milk for the purpose of making butter?

Mr. Hayward: But they pay the farmer a better price for it, and they can afford to do that, because they utilize skimmed milk. The butter makers can not pay the same price for it, because they do not utilize the skimmed milk.

Mr. Ten Eyck: I do not think that is the question about which the committee is so much concerned; that is, the business or financial question or the question of its competition with the producers of butter, cheese, etc. What we want to know is something regarding the value of it as a food product and whether or not it is detrimental if used in the way it is put on the market.

Mr. McLaughlin of Michigan: I asked that question for the purpose of bringing out the whole proposition as to how they conduct their business with reference to the things that they are in competition with.

Mr. Hayward: I had about concluded my remarks. There are two questions involved, one whether it is a menace to the public health, and the second is the economic question. Now, whether or not this product would have any effect upon the butter industry, as such, personally, and from a long study, I do not think that it will.

Mr. Voigt: Is it not a fact that a given quantity of this compound will practically drive out an equivalent quantity of milk or condensed milk?

Mr. Hayward: No, sir; I do not think so.

Mr. Voigt: Then, it is your idea that there is an additional consumption in the country?

Mr. Hayward: Yes, sir.

Mr. Voigt: You think that if this compound were totally removed from the market this moment, there would be just the same consumption of milk or condensed milk?

Mr. Hayward: As such yes, sir; but not for cooking and baking. This compound is made and furnished for use in cooking and baking, and if it were removed from the market the consumption of milk or condensed milk for the purposes it is now used for would go on just the same; but the people would not use skimmed milk as much as they do now for cooking purposes. I believe that this compound is just a step in economic progress. The other day I was talking to a man who manufactured whole milk powder, and he said that one of the difficulties in making whole milk powder was in getting it to keep. As you know, butter fat is made up of 10 different fats, seven of which are very unstable, and this manufacturer is taking out some few, but not all, of those seven fats, in order to get a milk powder that will keep.

Mr. Voigt: Your idea is that if the manufacturers of this compound should jump their production ten or twenty times the proportion of to-day, it would not injure the dairying business?

Mr. Hayward: No, sir. You can not have that product without having the cow. Ninety-six per cent of the product comes from the cow, and, as I have said, you can not have it without having the cow.

Mr. Voigt: Did you say that the Hebe Co. was advertising extensively through your firm?

Mr. Hayward: Yes, sir; we advertise it.

Mr. Voigt: Do you also advertise the Hebe Co.'s condensed milk?

Mr. Hayward: No, sir.

Mr. Voigt: You handle the compound?

Mr. Hayward: Yes, sir.

Mr. Voigt: Do you spend considerable money advertising it?

Mr. Hayward: I do not know how much they spend.

Mr. Voigt: Have you any copies of their advertisements with you?

Mr. Hayward: There are some copies here, but I have none with me.

Mr. Ten Eyck: If you take pure milk as it comes from the cow and mix it with pastry to make pies, what effect does the cooking have on the vitamins of the milk?

Mr. Hayward: I think that depends upon the height of the temperature and the length of time it is subjected to such temperatures. If it is heated to a high enough temperature and is subjected to that temperature long enough, it will kill them.

Mr. Ten Eyck: I would like to know whether or not for cooking purposes this compound and pure milk are practically the same, or whether the vitamins are killed in both so that those two articles of food, Hebe and real milk, become really the same after cooking. I want to know whether there are some vitamins left in the case of milk. If they are still left in the case of milk, then would not it be a great [fol. 362] deal better to use milk for pastries and other like things? If the vitamins are killed in both, then of course there would be practically no difference between the two. I would like to have that information brought out in a scientific way.

Mr. Hayward: If they are killed in one, they would be killed in the other.

Mr. Ten Eyck: There is hardly any in the one of them.

Mr. Hayward: Yes, sir; they are in both of them.

Mr. Ten Eyck: But there is not as much in one as there is in the other.

Mr. Hayward: No, sir.

Mr. Ten Eyck: There is not as much of vitamins in this compound as there is in milk as it comes from the cow. In using the same amount of each in a mixture or in a pastry there would be more benefit from the use of milk to the individual who eats it, provided the vitamins are not killed in the cooking.

Mr. Aswell: If they are killed in one, they are killed in the other.

Mr. Ten Eyck: I want to know the real facts in regard to that. I think that is the crux of the situation here to-day—that is, its use as an ingredient in the food that we cook.

Mr. Hayward: I will not undertake to answer that question. I am not a scientist along vitamines lines.

Mr. McLaughlin of Michigan: You made one statement that attracted my attention when you said that some ninety-odd per cent of this product comes from the cow.

Mr. Hayward: I said 96 per cent.

Mr. McLaughlin of Michigan: That is, 96 per cent of this product comes from the cow?

Mr. Hayward: I was mistaken there. It is 92 per cent. My thought was that there was 96 per cent skimmed milk and 4 per cent coconut fat, but it is 92 per cent.

Mr. McLaughlin of Michigan: Ninety-two per cent is milk?

Mr. Hayward: Yes, sir; 92 per cent of it is skimmed milk.

Mr. McLaughlin of Michigan: And 8 per cent is coconut fat?

Mr. Hayward: Yes, sir.

Mr. McLaughlin of Michigan: In that connection, what is the meaning of this statement on the label: "Contains 7.8 per cent vegetable fat, 25.5 per cent total solids"? Please explain that.

Mr. Hayward: That means that 17.8 per cent of the 25 per cent are milk solids and fats and that 7.8 per cent of the 25 per cent, or 25½ per cent, is vegetable fat.

Mr. Voigt: And the balance is water?

Mr. Hayward: Yes, sir.

Mr. Voigt: The vegetable-fat content of this product comes into direct competition with the cow, does it not?

Mr. Hayward: I think it does.

Mr. Aswell: Why should it not?

Mr. Hayward: I am saying that it does.

Mr. Voigt: Along the same line of my other question, you say that only about 8 per cent of this product is coconut oil, but in the last hearing there was a statement to the effect that in 1920 7,000,000 pounds of coconut oil were used in the manufacture of filled milk. It seems to me that if that 8 per cent would constitute 7,000,000 pounds of coconut oil, there would be a little inconsistency there.

Mr. Hayward: No, sir; there were 87,000,000 pounds, in round numbers, of milk-compound products that year, and 8 per cent of 87,000,000 pounds would be nearly 6,000,000 pounds of coconut fat. I can not vouch for those figures, however.

Mr. Voigt: The average cow produces about 150 pounds of butter fat per annum.

Mr. Hayward: Yes, sir.

Mr. Voigt: That being true, if 7,000,000 pounds of coconut fat were used in this compound, that would show that a great many thousands of cows are displaced by the coconut fat in the compound.

Mr. Hayward: You should not forget that the 8,000,000 pounds of butter fat came out of skimmed milk not fit for human consumption and it was not wasted, lost, or thrown away but went into the channels of human consumption, so that the consuming public got the benefit of the 8,000,000 pounds of butter fat.

Mr. Voigt: If you placed on the market so many million pounds of coconut fat, does it not follow that you are decreasing the quantity of butter fat on the market?

Mr. Hayward: No, sir; you are increasing the butter fat on the market, and that is the economic side of this situation. The question, to my mind, is whether it is really a detriment to the butter bussiness.

Mr. Voigt: You think that all of the dairy organizations and farm organizations have the thing sized up wrong?

Mr. Hayward: No, sir. I may be wrong, and I was wrong once. I fought the oleomargarine interests as secretary of the Pennsylvania Dairymen's Association. What we wanted there was to make oleomargarine stand on its own feet.

Mr. Voigt: You held a different position then from what you have now?

Mr. Hayward: Yes, sir; but my principles are the same to-day as they were then. So long as a product is sold for what it is, and so long as it is wholesome, it has a right to be in trade.

Mr. Jacoway: Provided it is marked so that it will deceive no one.

Mr. Hayward: Yes, sir.

Mr. Jacoway: I am trying to make a brief summary of your testimony, and, if I understand you, it comes to this, that the preparation known as Hebe serves many useful functions as a food product?

Mr. Hayward: Yes, sir.

Mr. Jacoway: The next thing you said was that it would not do any good to feed it to children, but that if it were fed to children it would not hurt them.

Mr. Hayward: No, sir; if it were fed to them inadvertently for a little while.

Mr. Jacoway: Did you state to the committee that the dairy associations of this country, or a great majority of them, are in favor of this bill?

Mr. Hayward: I believe that a great majority of the organized dairymen are in favor of this bill. I understand that they are in favor of the passage of the bill.

Mr. Voigt: Do you know of any opposition?

[fol. 363] Mr. Hayward: Not among the organized dairymen. I know that some of the unorganized dairymen are opposed to the bill.

Mr. Voigt: Do you know whether this compound is sold by grocers and advertised in the newspapers as milk?

Mr. Hayward: No, sir.

Mr. Voigt: It is advertised right here in Washington by grocers as Hebe milk.

Mr. Hayward: That is a very serious mistake and is against the policy of the manufacturers.

Mr. Jacoway: Does not that much of Hebe, when consumed by the American public, take the place of that much milk?

Mr. Hayward: I will answer that question, not by saying yes or no, but by saying this: I believe that that amount of Hebe consumed to-day, as it is, in cooking and baking, is an additional output or outlet for milk.

Mr. Jacoway: Then, it would not come into serious competition with the cow?

Mr. Hayward: No, sir; I am confident of that, because you can not have any of it without the cow.

Mr. Voigt: If the housewife did not have Hebe, would she use milk?

Mr. Hayward: She could not use condensed milk in baking.

Mr. Voigt: But ordinary milk?

Mr. Hayward: She could, but the price is higher. The question of trade comes in there.

Mr. Voigt: Then, you will admit that if the housewife did not have Hebe, or some similar compound, she would use milk?

Mr. Hayward: Suppose she should—would that help the dairy interests?

Mr. Voigt: I am trying to find out whether it displaces milk.

Mr. Hayward: No, sir; I do not think it does, because no other form of milk has ever been advertised or has made a place for itself as a cooking and baking ingredient. This compound occupies this field.

Mr. Clarke: I have just returned from Delaware County, and the sentiment up there in my country seems to be very much in favor of this proposed legislation.

Mr. Hayward: I would expect it to be so.

Mr. Voigt: Let me read from one of your advertisements just a minute. One of the advertisements that you have produced here says: "Use Hebe for cream of tomato soup, creamed shrimp, oyster pie, hot biscuits, rolls, bread, cottage pudding, custard sauce, chocolate, and cocoa. Serve it with tea and coffee, too." One of your advertisements says to use it for salad dressing, banana fritters, etc.

Mr. Hayward: That is, for cooking and baking.

Mr. Voigt: This is what another advertisement says, "Use Hebe for cream of tomato soup, fried chicken, creamed gravy, creamed fish flakes, creamed sweetbreads, asparagus in creamed sauce, lettuce with Hebe mayonnaise, coconut layer cake, chocolate and cocoa." Now, in all of those things, there is no housewife but would use milk instead of that compound, if she could not get the compound.

Mr. Hayward: She probably would not. She never has, as I understand.

Mr. Voigt: She has used it in tea and coffee.

Mr. Hayward: Yes, sir; but this company does not advocate the use of the compound for tea and coffee, but for cooking and baking. You said, Mr. Clarke, that the people in Delaware County, N. Y., were in favor of this bill. They are also in favor of a bill or ruling which is before the Commissioner of Internal Revenue that would put a tax of 10 cents per pound upon powdered milk made in centralized creameries. It is a question of whose shoe pinches. If that ruling goes into effect and the product of the centralized creamery is taxed 10 per cent, it will put all of the dairymen in Kansas and Wisconsin out of business.

Mr. Clarke: The point I am trying to get at is to what extent, if any, it does enter into competition with real dairy products. It is a question of how wisely they have been educated and led. Of course, I could go back and tell them that if I were not representing them in Congress in the

way they desired, or if they wanted somebody else to represent them on that proposition, they could get him.

Mr. McLaughlin of Michigan: Why do you say that your company does not advocate this Hebe compound for tea and coffee, when you find on almost every page of your pamphlet here advertising the product the recommendation to use it in tea and coffee?

Mr. Hayward: Since that pamphlet was printed, there has been a revision of the label.

Mr. McLaughlin of Michigan: This is dated 1921.

Mr. Hayward: I will ask Mr. McKee to answer that question, but the labels in use to-day are different.

Mr. McLaughlin of Michigan: I am talking about the circular, or this advertising pamphlet.

Statement of Mr. Paul R. McKee, Secretary, Carnation Milk Products Co., Chicago, Ill.

Mr. McKee: With respect to the change in the label, I can state that our advertising campaign was planned a long time in advance, and since that matter was gotten out, we have intentionally changed it so as to confine the product exclusively to cooking and baking uses. For use in tea and coffee it came in competition with Carnation evaporated milk, one of our products, and we changed it, as I have said, so as to confine it exclusively to use in cooking and baking.

Mr. McLaughlin of Michigan: This is one of the latest advertisements. Here is one of the labels which you put into my hands, and it is recommended for use in cooking and baking and also in tea and coffee.

Mr. McKee: We have changed that label.

Mr. Jacoway: Then you have changed the label?

Mr. McKee: Yes, sir; and it is only recommended for cooking and baking.

Mr. Jacoway: You have gotten out a new label and you have changed the wording of your new label so as to confine it to cooking and baking, cutting out tea and coffee?

Mr. McKee: Yes, sir.

Mr. Jacoway: Then, neither of these labels reflects what you want it to reflect?

Mr. McKee: No, sir.

Mr. Jacoway: On this revised label, which you say is your last label, you recommend it for cooking, baking, tea

and coffee. You have made an amendment to this old label, and then you have amended your amendment.

[fol. 364] Mr. McKee: It is our desire to put this product upon the market for exactly what it is, and we did not want it to come into competition with evaporated milk, and we found that it was in competition with Carnation milk. We wanted to develop a market for this product in addition to the market for evaporated milk. We were trying to confine the product to that purpose, realizing that evaporated milk never had been accepted by the housewife for cooking and baking purposes. In other words, that particular field had never been developed by the canned milk industry.

Mr. Kincheloe: You did that because of business reasons, and not because it was deleterious to health?

Mr. McKee: There is nothing deleterious to health in the product.

Mr. Voigt: Is any of it being exported?

Mr. McKee: No, sir; that market is not being developed. There has never been any export business in evaporated-milk products except during the war. We are developing that market for Carnation milk. In further answer to your question in regard to the export business, during the war a very large business was done in the exportation of evaporated milk from this country. That demand came from the armies in Europe and from France. Prior to the war there was very little business done in Europe by American evaporated-milk manufacturers, but since the war the Carnation Co. has endeavored to establish a market for Carnation milk in Europe, particularly in England and on the Continent. Also, in conjunction with two other companies we have expended a great deal of money, from which we have gotten no return, in attempting to develop a market in England and continental Europe for American milk.

Mr. Jacoway: You say there has been trouble in developing that market: What difficulties did you run up against?

Mr. McKee: In the first place, they require education. It seems that the consuming public in England and continental Europe have not yet been educated to the use of canned milk to the extent that they have been in this country. There has been an educational campaign conducted in this country to teach the consuming public what the product

is. Another difficulty we have had is the natural prejudice in some sections against importations from the States.

Mr. Clarke: Was it not also due to the high price of sugar entering into the manufacture of condensed milk and the rates of exchange?

Mr. McKee: The rates of exchange were the principal thing.

Mr. Clarke: Is it not true to-day that Denmark and Holland are the largest consumers of oleomargarine per capita in the world, and that their products are coming into our country with the bars open and no tariff against them?

Mr. McKee: Yes, sir; that is true. I know that during the war they could manufacture sweet milk in Holland and lay it down at New York in oak barrels cheaper than we could produce it here.

Mr. Voigt: What is Carnation milk?

Mr. McKee: It is whole milk from which the water content has been evaporated. Its water content is down to a little less than two to one and the product is then run through a homogenizing machine which breaks up the globules of fat so that they remain in permanent suspension in the milk, so that the cream does not rise. The product is then sterilized after it goes into the cans. There is nothing added to the milk as it comes from the cow, and nothing is taken away except a part of the water content.

Mr. Ten Eyck: Does that sterilization kill the vitamins?

Mr. McKee: That has been the subject of considerable discussion, and it is not yet settled. At hearings I have attended, Prof. McCullom and Dr. Hart have stated that they could not recommend evaporated whole milk as satisfactory for food, but not because they were satisfied that the fat-soluble A was entirely destroyed, or because of the destruction of the water-soluble B. It is my information that it has considerable to do with the question of the prevention of rickets, although cod-liver oil is the thing most frequently discussed in that connection.

Mr. McLaughlin of Michigan: A difference of opinion has been expressed here as to whether your industry helps or hurts the producer of milk: What do you say about that?

Mr. McKee: The prosperity of our business is necessarily dependent upon the prosperity of the producer. If we, in their opinion, manufactured a product that was going to injure the producer, we would not survive any great

length of time, because their prosperity is necessarily ours. When we started into the manufacture of this compound, we made a very careful investigation as to market conditions, as to the effect it would have upon the producer and upon the question of the proper sale of the product. We knew from our long experience in the milk business that there were enormous quantities of skimmed milk produced in this country which were not finding their way to market as a human food. Of course, a very considerable percentage of the skimmed milk was used in feeding stock and in feeding hogs. We believed at that time, as we do now, that there is the great economic question which faces the dairyman to-day, the proper utilization of his by-products, and I do not believe that question is ever going to be solved until a way is found to bring that skimmed milk on to the market as a human food. We firmly believe that the manufacture and sale of a product of this kind under an honest label, advertised and sold for exactly what it is, and the establishment of a market for the product for certain specific purposes is going to help solve that problem. Those who are opposed to the manufacture and sale of the product say we are wrong. The big economic question is still there. So far as I know, no remedy has ever been offered on the part of those opposed to this product.

The product has been damned by the opponents by associating it with filled cheese, a product which came on the market as a fraud, no attempt being made by the manufacturers of it to establish a market for that product under its true name. It was allowed to masquerade as cheese, and unquestionably very seriously injured the market for the real article. This product has been dubbed filled milk, so that the odium which attached to filled cheese would attach to this product. I think that was eminently unfair. This product came onto the market under an honest label. The advertising done by the manufacturers proclaimed in plain language that it was a compound of evaporated skimmed milk and coconut fat. It was not sold as evaporated milk or as a substitute for evaporated milk, but was sold for exactly what it is.

It was the policy of our company to test out the question of whether the public would accept a product of this kind under a plain label telling them exactly what the product is. We know they have done that.

[fol. 364½] Mr. Clarke: Mr. McKee, let me ask you a question right there. Why is it, then, that you are changing the label?

Mr. McKee: We are changing the label, Mr. Clarke, out of deference to people who have criticized the product.

Mr. Clarke: That is fair.

Mr. McKee: We have had the product on the market for five years. No complaint has ever come to us on the part of a purchaser that he had been defrauded in the sale of this product. In any litigation we have had no consumer has ever been produced in court who would come in and say "I was imposed upon. I was defrauded in the sale of this product to me." There is no record which shows that any person has even been injured in the use of this product. When they stated that it lacked these vitamines of skimmed milk or that it only had 50 per cent of the vitamines and that it might be used as infant food, we said, "We do not want it used as infant food, and if you want us to put on 'Do not use for milk in infant feeding' we will put that on."

Mr. Clarke: But do you not think there have been other products similarly compounded and offered for sale that have had a tendency to fraudulently put over something on the general purchasing and ignorant public?

Mr. McKee: You mean where the labeling has not been perfectly plain?

Mr. Clarke: Yes.

Mr. McKee: I think that is perfectly true, and I want to say further that the Carnation Co. and the Hebe Co., which are allied in interest, have always been in favor of any reasonable regulatory measure in regard to the manufacture and labeling and sale of this product. This label was adopted after conferences with the Bureau of Chemistry of the Department of Agriculture and with the food-control officials of a number of States, and we adopted this label at their suggestion and upon their recommendation, and we have said to them: "Gentlemen, if there is anything else we should put upon the label or leave off of the label in order that the product shall be sold for what it is, we will be very glad to have your suggestions and to follow them."

Now, I do know that there are manufacturers of this product who have not made their label as fair as it should be, but they are going to change that label. I have had

assurances from every man in the industry and I have been trying to urge upon them to do that for the last year. So far as regulation is concerned which shall prescribe what shall be on the label and what shall not be on the label, we are perfectly willing to submit to any regulation of that kind. We want the product sold for what it is and not sold for evaporated milk.

Mr. Clarke: Do you think the pure food and drugs act goes far enough to meet the requirements here?

Mr. McKee: No; I do not. I think that some regulatory measure could be adopted which would insure the product being properly labeled, and I might say that that also applies to a great many other wholesome compounds which are on the market.

Mr. McLaughlin of Michigan: Mr. McKee, the hearing will have to be adjourned now, and Mr. Haugen directs me to say that the committee will stand in recess until 10 o'clock to-morrow morning.

(The committee thereupon adjourned until Thursday, July 7, 1921, at 10 o'clock a. m.)

Committee on Agriculture, House of Representatives

Thursday, July 7, 1921.

The committee met at 10 o'clock a. m., Hon. Gilbert N. Haugen (chairman) presiding.

There were present: Mr. Haugen, Mr. McLaughlin of Michigan, Mr. Purnell, Mr. Voigt, Mr. McLaughlin of Nebraska, Mr. Tincher, Mr. Williams, Mr. Sinclair, Mr. Hays, Mr. Thompson, Mr. Gernerd, Mr. Clague, Mr. Clarke, Mr. Jacoway, Mr. Rainey, Mr. Aswell, Mr. Kincheloe, Mr. Jones, and Mr. Ten Eyck.

Mr. Kincheloe: I move, Mr. Chairman, that the Chief of the Bureau of Chemistry and the Chief of the Dairy Division of the Department of Agriculture be invited and requested to come before the committee on this bill.

Mr. Aswell: Mr. Chairman, may I make an inquiry before we begin the hearings this morning? We are devoting a great deal of time to hearings on various food products. I am informed that under the direction of Mr. Herbert Hoover there has been quite a fund assembled in the Leland Stanford University, of California, for the establishment

of a research laboratory, the primary purpose of which is to pass upon all food products. That is their business and it is of countrywide importance. It is the highest authority in the land, and I wondered why we could not submit some of these questions to this great university of research under the direction of Mr. Herbert Hoover, and save a lot of time, energy, and annoyance.

Mr. Clarke: It seems to me that is good, horse-sense.

Mr. Aswell: I understand he has collected a fund for the specific purpose of passing on any food products about which there is any question, and it seemed to me that the committee might simply make a request to Mr. Hoover to have this question investigated and reported upon.

Mr. McLaughlin of Michigan: I think that is all right.

The Chairman: We will first take up the suggestion made by Mr. Kinchelöe that the committee invite the Chief of the Dairy Division and also the Chief of the Bureau of Chemistry to appear before the committee on this bill, and without objection it will be so ordered.

(On motion of Mr. Aswell the chairman was authorized to fix the date for all hearings.)

The Chairman: Who is the next witness?

Mr. Davis: Mr. Chairman, I want to introduce a gentleman who has had an opportunity to study this question not only from the point of view of a physician but from the aspect of its effect on the consuming public. This gentleman is the industrial physician for the American Smelting & Refining Co.; the Barber Asphalt Paving Co.; the Vacuum Oil Co., of Perth Amboy; the United Lead Co.; the Roessler & Hasslacher Chemical Co.; the Standard Underground Cable Co.; the Raritan Copper Works; the Pennsylvania Railroad Co., and the Lehigh Valley Railroad Co.—Dr. William E. Ramsay.

Statement of Dr. William E. Ramsay, of Perth Amboy, N. J.

Dr. Ramsay: Mr. Chairman and gentlemen of the committee, I know how to sympathize with you in conducting prolonged hearings in this hot weather, especially on scien- [fol. 365] tific subjects. I am going to cut out the scientific end of it as much as I possibly can, and get down to the real, practical end of the matter.

A statement was made at the hearing yesterday that brought up the question of the people in humble circumstances buying this milk under misrepresentation. I am speaking now from the standpoint of the industrial physician. My work brings me in contact with people in the industries, the working people, and brings me in contact with their homes. In connection with the plants with which I am connected, I am not only supposed to take care of the men in their employment but also their welfare at home, and with my assistants and nurses I keep in constant touch with their mode of living and their diet and other things that go to their social welfare and social makeup.

I heard it stated yesterday that these people could not read the labels. I agree with you that is true, and the majority of the people in these plants are people from central Europe, Poles, Slavs, Hungarians, and, in fact, all nationalities, but my experience has taught me that probably they are the most careful students of food economy that we have. They can teach us how to economize in foods. They can teach the average American family how to not only economize in foods but I really believe they know more of the real food values than do the people in the ordinary walks of life. They do not know very much about vitamines, it is true; in fact, I do not.

Mr. Aswell: Who does know anything about vitamines?

Dr. Ramsay: I was going to say that whenever I hear a discussion on vitamines I am very much reminded of the Scotchman's definition of psychology, who said that psychology was a man talking about something he knew nothing about to people who did not understand what he was saying.

If you are to judge your foodstuffs entirely by their vitamine value, I think you will begin to eliminate foodstuffs by the score, and it is a question in my mind how quickly we will attack milk itself.

Mr. Clarke: Just a moment, Doctor. You did not mean to be personal, did you?

Dr. Ramsay: I hope not.

Mr. Kincheloe: As one member of the committee I will plead guilty.

Dr. Ramsay: Gentlemen, I am fairly familiar with hearings. I have served seven years in the New Jersey State Legislature, both in the senate and in the assembly, and for

three years I was chairman of the public health committee, and so I am quite used to listening to scientific discussions and can sympathize with you all.

Now, these people do not read labels, but I will guarantee that they will know more about the contents of that can before they will buy it than the average, intelligent college graduate, for the reason that they go to their grocer and when he offers it for sale they want to know what it contains, and woe unto the man who fools one of these poor, ignorant people, as they are supposed to be. They can not read or write, but he has got to tell them what it is before they use it; and to that end, gentlemen, I have investigated, through my assistants and through my nurses, as to what use this product is put to in the homes, and I find that it is used by them for cooking purposes. I find that in some cases they use it in their coffee, which does not enter into infant feeding.

Mr. Kincheloe: Doctor, is that injurious?

Dr. Ramsay: No.

Mr. Kincheloe: I mean, is it injurious to use it in tea and coffee?

Dr. Ramsay: No. I think you could drink that right out of the can and it would be beneficial, because it is simply skimmed milk with vegetable oil added, so stated on the label, and so advertised by the company.

Mr. Kincheloe: The reason I asked you that question was that some of them stated here yesterday that they were no longer advertising it for tea and coffee; but even if it is used for that purpose, it is not good stuff for that purpose?

Dr. Ramsay: Absolutely. There is absolutely no objection to it. The amount of food value in the milk that you put into a cup of coffee or into a cup of tea is so infinitesimal that it is hardly worthy of discussion. This makes it more palatable and answers the same purpose, because it coagulates the tannin in the tea or the tannin in the coffee, which you get from the albumen in the milk, and that still remains in this preparation.

Mr. Clarke: Have your investigations covered other brands of this product as well as the Hebe?

Dr. Ramsay: The only one I know anything about is the Hebe. I want to say that in the section in which I live I have even gone so far as to find out what the sale of the product is. There are over 700 cases per month sold in

my immediate vicinity, and the great bulk of those sales, as stated by the grocers, is among these people in industrial life who are figuring it out and have figured it out from the standpoint of food economy.

Mr. Ten Eyck: How large is that immediate vicinity to which you refer to?

Dr. Ramsay: The city of Perth Amboy, which is purely an industrial center.

Mr. Aswell: After they use it once or twice and try it out, do they come back and buy it again?

Dr. Ramsay: Yes; they do.

Mr. Aswell: That is, does the sale of the product increase after they experiment with it day after day.

Dr. Ramsay: The sales have increased. My information along that line was obtained first from the wholesale grocer, and then I got a list of the stores to which it was sold in the neighborhood in which my work carries me, and I also inquired of those grocers what it was sold for, and found that it is sold as a cooking milk compound.

Mr. Jones: What does that can retail for on the average?

Dr. Ramsay: I really could not tell you. I do not know the retail value.

Mr. Davis: Perhaps Mr. McKee can tell you that.

Mr. Parker: It retails for about 10 cents.

Mr. Jones: Does it sell at practically the same price as condensed milk at retail?

Mr. Parker: No; from two to three cents a can less. The differential in the jobbing price is about $1.50.

Mr. Jones: That is the price to the retailer?

Mr. Parker: No; that is the price to the wholesale grocer, but that same ratio carries right straight through. [fol. 366] Dr. Ramsay: The thing that appealed to me strongly in the psychology of these people, and the reason why this has appealed to me is on account of the cost of living. I do not believe that any of you realize the question of conservation of food as practiced by the people with whom they have this sale. I think if I told you just one or two little instances along that line it would be helpful. When they kill a chicken they save the blood and they also take the intestines and take off every particle of fat and conserve the fat for its food value. They take the feet and scale them off, and there is absolutely nothing about a chicken that those people do not conserve for its food value.

One other point: In a Polish or Hungarian boarding house, where the boarding-house mistress has 4 or 5 or perhaps 10 men boarding, every man buys his own piece of meat. She labels it in such a way that she knows it. One man will want a half pound of meat and another man will want three-quarters of a pound. That meat is bought by her every morning and when their noonday meal is made, this meat is all put in a pot and cooked together, and the individual piece of meat is taken out and served to the man who buys three-quarters of a pound and to the man who buys half a pound of meat, and so on, and then the soup stock or the gravy or whatever it may be called goes to the general use. The boarding-house mistress furnishes the bread.

Mr. Aswell: That is cooperation.

Dr. Ramsay: It is. It is absolutely the most wonderful study of food economy you can find among the people. Now, when it comes to the question of that which is used in common, for instance, their breadstuffs, the boarding-house mistress makes the bread. They will not use bakers' bread. They have their own homemade bread, and that bread has got to be of a good quality or else she hears from it, and I find they use this milk compound in the manufacture of their bread. They will not take a water-made bread. They will not stand for it and would resent it, and for that reason there is a larger market for this product among the Polish, Hungarian, Slavish, and Russian people than there is among other classes of people, and I do not find any of them starving to death. I have never seen a child fed on this compound, and my nurses report to me they do not find that it is used in infant feeding. The only case where it is used in general use for food, as I have been able to find, is in tea and coffee, and as I say, gentlemen, the quantity is so infinitesimal that even though it was injurious, which it is not, that could not come under the head of a foodstuff.

Mr. Aswell: If you put that compound in coffee or tea, you would have the advantage of the coconut oil which is in it, because if you go down to the House Restaurant here and ask for cream you get skimmed milk, and if you ask for half and half, you get half milk and half water.

Dr. Ramsay: And as I have already stated, these people are very careful. I will be pleased, gentlemen, if there is anything along the line of work I am here to represent if you would ask me about it. There are some things I may

have omitted, but I will be only too glad to go into as full a discussion of this matter as I can, but it is pretty hard for me to tell what you do not know about it, but I will be pleased to answer any questions you may desire to ask.

Mr. Kincheloe: Doctor, of course, in a few of the States the dairy interest is, of course, the leading industry, practically, and therefore the people who live there or adjacent thereto have no trouble in getting milk, if they want it, but is it not a fact that there is a great portion of territory of the United States in which there are small towns where the people not only do not have any cows but where there is no dairying industry close by and where they can not get the pure milk even if they wanted it?

Dr. Ramsay: That is very true, and another very important fact is the difficulty of keeping fresh milk in these tenement houses where they have no ice. When they get their fresh milk it is used for the fresh-milk purposes immediately, and the milk compounds and condensed milks, and the other milk preparations they can keep very much better, and to them it is a matter of economy from the standpoint of the ice proposition.

Now, gentlemen, this thought appeals to me. I heard the suggestion offered about leaving this to the department for the investigation of food. As a matter of fact, there is nothing contained in this preparation that is injurious to public health, and if there is it is a matter of police regulation and comes under the public-health laws just as much as anything else. As far as the elimination of it from a commercial point of view is concerned, I can not see wherein it occupies any different position from any of the other milk products or from mayonnaise dressings or any of the preparations put up in sealed vessels for food purposes. I can only speak from the standpoint of a physician in industrial practice, where this is being used among the people, and it is my duty to my concern and to the people I represent to see that they are protected in their foodstuffs, and I have never seen any occasion yet to interfere with any of these milk compounds where they are used for the purposes for which they have been used.

Mr. Aswell: Doctor, may I ask you approximately, how many people you and your assistants come in contact with?

Dr. Ramsey: You mean the men in employment?

Mr. Aswell: In all your business.

Dr. Ramsay: Of the men in employment, over 5,000, and in the families, that would be more than doubled.

Mr. Voigt: Doctor, you say that the people employed by the concerns you are representing number about 5,000?

Dr. Ramsay: The men in the employment number about 5,000, but that does not represent their families.

Mr. Voigt: If you multiply that by three or four, figuring a family at four, we will say, then you will look after about 20,000 people.

Dr. Ramsay: They would hardly increase to that number. A great many of these men in the employment are not heads of families but are sons of heads of families. I would say that 10,000 would be a closer estimate.

Mr. Voigt: If you look after 10,000 people, you have not much opportunity to give any appreciable part of your time to any one of the 10,000, and yours is a sort of general supervising job?

Dr. Ramsay: As I stated in my opening remarks, I have assistants and nurses who work with me. I have at the American Smelting & Refining Co., a hospital where I treat the cases right there, and at the Raritan Copper Works [fol. 367] I also have a hospital, and I also visit at their homes, as also do my assistants and my visiting nurses. We have visiting nurses who do nothing but look after the social side of the homes.

Mr. Voigt: Have you personally gone into any of these homes and seen them using this Hebe compound?

Dr. Ramsay: Oh, yes; I have.

Mr. Voigt: I have.

Dr. Ramsay: I could not give you the exact number, but my daily work takes me into their homes right straight along. I do visiting work just as well as my assistants.

Mr. Voigt: I am simply wondering how much personal attention you have given to have seen the use of this compound in the homes of these people.

Dr. Ramsay: In the last month I have made it a special point to inquire, because my attention has been particularly drawn to that point.

Mr. Voigt: Is there any food product that you have advised these people not to use?

Dr. Ramsay: Oh, yes.

Mr. Voigt: Will you mention those?

Dr. Ramsay: I have advised them in a good many cases not to use certain classes of butter I have seen there, which

was very rancid and fly-specked and so on. I do not recall any of the prepared foods that my attention has been called to especially, but very frequently I regulate the diet in the homes where I go, and my assistants also do the same thing.

Mr. Voigt: The only article you have advised against that you can recall now is butter?

Dr. Ramsay: Oh, no. I have advised against some meats. In regulating the diet of patients, you are constantly called upon to report on their foodstuffs and to change their diet and to regulate their diet.

Mr. Voigt: You are referring now to patients?

Dr. Ramsay: Yes, I am referring to patients.

Mr. Voigt: Of course, you regulate the diet of sick people?

Dr. Ramsay: Yes.

Mr. Voigt: But what I want to know now is whether you have tried to recommend or tell these people not to use certain food products?

Dr. Ramsey: As patients; yes.

Mr. Voigt: But not otherwise than as patients?

Dr. Ramsay: No. My attention has not been especially directed to anything other than along that line.

Mr. Voigt: Have you observed any regular condensed milk in the homes of these people?

Dr. Ramsay: Yes, frequently.

Mr. Voigt: Do you regard that as being just as good as the Hebe compound?

Dr. Ramsay: No objection to if at all. Condensed milk is a perfectly proper article of diet; yes.

Mr. Voigt: You do not think these people would suffer if they did not have this Hebe substitute?

Dr. Ramsay: No. Neither would they suffer if they did not have condensed milk.

Mr. Voigt: That is, you do not want to put the committee under the impression that these people are not able to get a sufficient supply of fresh milk?

Dr. Ramsay: No. The fresh milk is sold to them right along.

Mr. Voigt: Do you know of any place in the United States, any industrial center, where an ample supply of fresh milk can not be obtained?

Dr. Ramsay: I do not.

Mr. Voigt: You are satisfied in your own mind that these 10,000 people who are in your charge know exactly what is contained in this Hebe can?

Dr. Ramsay: I believe that those who buy it and use it do; yes. I do not say that the whole 10,000 people are buying Hebe or any other milk compound.

Mr. Voigt: No; but those of them who use it, you are satisfied know just what the can contains.

Dr. Ramsay: I am satisfied that a great majority of them do, knowing their mode of buying, their mode of conducting their home affairs, and knowing about their food economies, I know that these people are better posted than people in better circumstances who do not take the time to inquire what they are getting. These people do take the time to inquire.

Mr. Voigt: That is a general statement; but the question I am asking you is whether you are satisfied that all the people who do use the Hebe compound or a similar compound, and who are under your charge, know the contents of the can.

Dr. Ramsay: I believe the great majority of them do; yes.

Mr. Voigt: What do you think about a similar class of people who are not under medical supervision? Do they know the contents as well as your people?

Dr. Ramsay: Please let me understand just what you mean by similar people.

Mr. Voigt: Well, take a similar class of people to those that are under your supervision but who do not happen to have the benefit of medical supervision such as you are hired to give them, do you think they know the contents of one of these cans as well as your people?

Dr. Ramsay: Oh, yes, I do, for the reason that I am not the one who has instructed these people in their knowledge of Hebe. My only mission was to inquire what they did know about it when I went on that one particular task, and I found they were posted and the grocers also informed me, when I asked them the question, "Do these people know what they are getting?" "They do," they said; "we instruct them." You can not sell these people anything unless you tell them just what it is. They do not buy a cat in a bag.

Mr. Voigt: Of how many grocers did you ask that question?

Dr. Ramsay: I should say, roughly, about 8 or 10.

Mr. Voigt: Did these grocers know who you were?

Dr. Ramsay: Yes; they all know me there. I am well known in the town.

Mr. Voigt: They understood that you did not come there to buy milk?

Dr. Ramsay: Yes. I told them just what I came there for. [fol. 368] Mr. Voigt: They knew you were a doctor and knew you came to ask some questions with reference to it.

Dr. Ramsay: I told them why I came there.

Mr. Voigt: And they all knew who you were.

Dr. Ramsay: Yes; they knew who I was and exactly what I came for. I made no "bones" about it. I told them why I came and what I was trying to inquire into.

Mr. Voigt: Have you, or anybody under your supervision, ever made an attempt to send a stranger around to these stores to ask what this milk was or what it was good for?

Dr. Ramsay: No; I have not.

Mr. Voigt: It is your opinion that these foreigners in the employ of your companies who can not read the label know more about the contents of a can of this substitute than the average college graduate in this country?

Dr. Ramsay: I really do believe they know more than the average college graduate who goes in and buys things promiscuously. It is really a well-known fact that our people in buying food products or canned goods inquire very little what they are made of. How many people among your acquaintances can tell about a can of patie de foi gras? They buy it simply because it is patie de foi gras, and it is also true that half of our people do not know what a truffle is; but you ask one of these foreigners what is contained in one of those cans, and I will bet you that even though they can not read or write they will give you an intelligent reply as to what it contains. They are a most skeptical people. They are really timid and are more careful and more discerning than we give them credit for. They are almost like the heathen Chinee.

Mr. Voigt: Then, if the public is entitled to any protection against these compounds, it is your judgment that the committee must look out for the college graduate more than for the ignorant farmer.

Dr. Ramsay: If you choose to take that construction of it. I really believe these people are better protected by their own suspicion, a great deal, than our people are who go

in and buy something offhand or simply from some advertisement or from something they have seen on a bill of fare.

Mr. Voigt: Do you think any class of people in this country buy this compound without knowing what it is?

Dr. Ramsay: That is possible; oh, yes; that is perfectly possible.

Mr. Voigt: Do you think the label always protects the average consumer as to the true contents of a can?

Dr. Ramsey: No, sir; it does not. You find that right straight along in your emulsions of cod liver oil which they claim contain 35 per cent of pure cod liver oil, and the label will tell you that, and I defy anyone to obtain an emulsion with 35 per cent of pure cod liver oil, yet they are being sold constantly throughout this country and they know they will not keep, and I do not think your mayonnaise dressing contains pure olive oil either, but I do believe that that is a matter of police regulation and comes under your public health department.

Mr. Voigt: Then you are fully satisfied that a label can not protect the public fully against the contents of canned articles?

Dr. Ramsey: No, sir; it does not.

Mr. Aswell: Would you prohibit the manufacture and sale of any article that is not protected by the label, such as mayonnaise dressing and cod liver oil; would you prohibit them from being sold?

Dr. Ramsay: No; I would not.

Mr. McLaughlin of Michigan: If you are entirely right in saying that this is a matter of police regulation, that means that the food and drugs act that we have thought so much about is a mistake and is improper legislation?

Dr. Ramsay: No; I mean the police regulations and the public health authorities have the power in their department of chemistry to see whether the products are pure food products, and it can be regulated in that way. I think the highest grade of legislation we have got is the legislation that protects our food products.

Mr. Voigt: Doctor, you are satisfied, as a physician, that a certain amount of vitamines are necessary for the growth of children?

Dr. Ramsay: We are taught that vitamines are essential. We were taught a few years ago that it was criminal to give a child milk that was not pasteurized. To-day we are told that pasteurized milk is one of the dangerous things

to give a child. Science is gradually developing into a definite proposition. Science to-day is not a definite proposition. Science to-day is a matter of a combination of theory and definite knowledge, and gradually the theory is being replaced by definite knowledge.

Mr. Ten Eyck: You are talking now of the science of medicine.

Dr. Ramsay: Yes.

Mr. Ten Eyck: I am a civil engineer.

Dr. Ramsay: Well, you deal a whole lot with facts and figures.

Mr. Aswell: But what he says applies to all science, including yours.

Dr. Ramsay: I believe that as our knowledge of vitamines increases possibly we will be able to determine which vitamines are really necessary. To-day only men who are doing laboratory work and doing the most profound laboratory work can even come anywhere near telling what he thinks a vitamine is.

Mr. Aswell: And he is guessing.

Mr. Kincheloe: And they do not agree.

Dr. Ramsay: They do not agree; no, sir.

Mr. Voigt: Of course, we all understand that medicine is not a strict science, but the fact remains that if we are going to regulate or legislate, we must do so in the light of the information which is obtainable at the present time, and at the present time physicians are agreed that a certain quantity of vitamines are necessary for the growth of children and are also necessary for adults.

Dr. Ramsay: That is the general consensus of opinion and yet those same men are feeding products to-day in which the vitamine value is not and can not be established.

Mr. Jacoway: Doctor, what is the meaning of the word "vitamine"?

Dr. Ramsay: Vitamine, as nearly as they can get at it, is a certain something which is found——

Mr. Aswell: Has anybody ever seen one?

Dr. Ramsey: Nobody has ever seen one or caught one, and they have not been determined in chemistry.

Mr. Jacoway: Can you see it with a microscope?

[fol. 369] Dr. Ramsay: It is a certain something that is found in foodstuffs in various degrees between animal and vegetable products, and in various degrees in various vege-

tables and animals, which have the power of building up cell growth. That is as near a definition as they have been able to give as to exactly what it is.

Mr. Jacoway: Is it a thing needed in the balanced meal?

Dr. Ramsay: It is a name that is given to a something that goes to build up tissue.

Mr. Ten Eyck: Is it vegetable life?

Dr. Ramsay: They have not been able to establish its chemistry. Even such men as McCollum——

Mr. Jacoway (interposing): How do they know that it exists?

Dr. Ramsay: They know that by animal experimentation.

Mr. Jacoway: But when they make these animal experimentations one scientist says that a certain result is obtained and another one says that he is mistaken about that and a certain other result is obtained.

Dr. Ramsay: Exactly.

Mr. Jacoway: And you have to learn your lesson all over again. We are just traveling around in a circle and come back to where we started.

Dr. Ramsay: That is what I meant when I said that it was so indefinite.

Mr. Voigt: Doctor, that is not quite a fair statement on your part is it? The doctors are generally agreed that there is such a thing as vitamine.

Dr. Ramsay: Yes; I have said that.

Mr. Voigt: And they are all agreed that it is necessary for the growth of the human being?

Dr. Ramsay: Yes.

Mr. Voigt: So that to that extent there is no speculation about the subject?

Dr. Ramsay: I have already said that, that there is a certain something that is called a vitamine, but when it comes down to making a definite definition of a vitamine they have not been able to do it, and it is established entirely upon animal experimentation. Chemists and microscopists and no else has ever been able to isolate what is known as a vitamine.

Mr. Voigt: It being true that the chemists are unable to isolate these vitamines, yet they do know of their existence?

Dr. Ramsay: Yes.

Mr. Voigt: And they do know that it is necessary for human growth?

Dr. Ramsay: I have stated so; yes.

Mr. Voigt: And they also know that vitamines are not found in all foodstuffs, and it is also agreed that vitamines are present to the largest extent in pure milk?

Dr. Ramsay: It is, as I have stated, found to various degrees in different foodstuffs. Some are claimed to carry vitamines to a larger degree than others, but there are a great many vitamines that they have not been able to isolate. They have simply got a suspicion of the existence of them.

Mr. Voigt: But the vitamines that the physicians are agreed upon at the present date are contained chiefly in milk?

Dr. Ramsay: Milk is one of the highest vitamine carriers, so acknowledged by theorists or by the laboratory workers.

Mr. Ten Eyck: Any higher than eggs?

Dr. Ramsay: I believe so; yes. The proteins are the active part of your egg. That is a nitrogenous food.

Mr. Jacoway: Doctor, do I correctly understand from your testimony that the vitamines in this Hebe that you manufacture——

Mr. Clarke (interposing): He does not manufacture it.

Mr. Jacoway: Or that is manufactured, contains certain elements of food which it is good to take into the human stomach but not as good as other things, perhaps, but that there is deleterious effect from using this food?

Dr. Ramsay: I know of no deleterious effect from evaporated milk, which this product is. This is a milk compound, as I am informed, which is concentrated, and after the concentration to which some 7 per cent of a vegetable oil has been added to replace the animal fat which has been removed. I know of nothing in that which is deleterious to public health.

Mr. McLaughlin of Michigan: By replacing the animal fat, you mean replacing the butter fat?

Dr. Ramsay: Yes.

Mr. McLaughlin of Michigan: But this does not replace it.

Dr. Ramsay: It takes the place of the animal fat.

Mr. McLaughlin of Michigan: It occupies the place but it does not supply the food value there was in that animal fat which was removed from the milk.

Dr. Ramsay: I do not think that it does in the same quantity, but for cooking it replaces the shortening that is used in order to make it essential in cooking.

Mr. Voigt: Doctor, in your investigation of this compound, how many different brands did you find?

Dr. Ramsay: To be frank, I was not looking for any other.

Mr. Voigt: Then the only brand you are familiar with is Hebe?

Dr. Ramsay: Yes, sir; that has the largest sale. On inquiry of the wholesale grocer, he informed me that this was the brand that was sold more than any other of the milk compounds, and I know nothing about the others.

Mr. Voigt: You have no knowledge of what the other manufacturers put on their labels or what they claim for their products?

Dr. Ramsay: I really have not; no, sir.

Mr. Voigt: And you have no knowledge as to what use the other compounds are put to?

Dr. Ramsay: And I have no knowledge of the composition of the other compounds, either; no, sir.

Mr. Kincheloe: Doctor, is Dr. Mendel considered a good authority by the medical profession?

Dr. Ramsay: Dr. Mendel, of Yale, is one of the most able men we have in the country.

Mr. Kincheloe: Is he considered as good an authority as Dr. McCollum?

Dr. Ramsay: I think so.

Mr. Kincheloe: Do you agree with Dr. McCollum that he knows more about this than anybody else?

[fol. 369a] Dr. Ramsay: I think I would take Dr. Simon Flexner's opinion as well as his.

Mr. Kincheloe: Dr. McCollum testified that he knew more about this proposition than any other living man, and I wondered whether you agreed with him or not.

Dr. Ramsay: Dr. McCollum probably knows his own value.

Mr. Kincheloe: But the point I am making is, does the medical profession regard Mendel as high an authority as McCollum?

Dr. Ramsay: Yes; and his position would indicate that. Nobody could occupy that position in Yale University unless he was an authority.

Mr. Voigt: Doctor, do you know which one of these two men has made a more thorough investigation along this particular line?

Dr. Ramsay: I really could not say. I was connected with Hopkins some years ago myself, and I know of Dr. McCollum, who is a very able man. I know Dr. Mendel, and he is also a very able man; and I know Dr. Simon Flexner, of the Rockefeller Foundation; and they are all about the same class of men.

Mr. Voigt: Do you know whether Dr. Flexner has made any special study of the effect of the vitamines on the human system or on animals?

Dr. Ramsay: Dr. Flexner's work on vitamines is very exhaustive; yes. Dr. Flexner is a very able man.

Mr. Voigt: Is it not a fact that Dr. McCollum has made more of a study of this particular subject; that is, the value of vitamines in feeding—than any other man in the country?

Dr. Ramsay: I could not make that statement conscientiously. I know he is a very able man, but I think there are a great many men who are now doing more exhaustive work than he and who have not written up their work yet and have not appeared so much in public print as Dr. McCollum. Dr. McCollum, I think, is better known to the public through his public appearances than probably Dr. Simon Flexner, but Dr. Simon Flexner has probably done more exhaustive work in the Rockefeller Foundation than Dr. McCollum, and I do not think Dr. Flexner's work in toto has been published.

The Chairman: Tell us why they advise against the use of pasteurized milk?

Dr. Ramsay: Because they claim that by the process of cooking or by the process of heating it you destroy its digestibility, and that the child is not as well nourished after feeding on pasteurized milk as it is on nature's milk, or the natural article.

The Chairman: How does it affect the cream or butter?

Dr. Ramsay: I really could not tell you. I do not know. My testimony is not given from the standpoint of a profound scientist, but more from just the practical experience I get in my work, which takes me among the people in industrial life.

Mr. McLaughlin of Michigan: Would you be able to express an opinion as to the result and effect of the manufacture and sale of this product on those who keep cows and produce milk?

Dr. Ramsay: I want to get that question straight. Will you read that, please?

(The stenographer read the pending question, as follows:)

Mr. McLaughlin of Michigan: Would you be able to express an opinion as to the result and effect of the manufacture and sale of this product on those who keep cows and produce milk?

Dr. Ramsay: I really could not say. The only thing is that this is saving what ordinarily would be a waste product. Now, whether it interferes with the sale of milk or not I really could not tell you.

Mr. Jacoway: Doctor, if you are correct, would it not widen the scope of the market for milk and would it not give more people an opportunity to sell their milk?

Dr. Ramsay: It would be more far-reaching; yes, because as a cooking compound this is used in cooking where I do not think they would otherwise use fresh milk.

Mr. Jacoway: What effect would it have on the butter market?

Dr. Ramsay: It does not interfere with the butter because there is no butter in this.

Mr. Jacoway: I mean the butter that they get from their milk. What effect would that have on the creameries?

Dr. Ramsay: That butter has already gone into the market and the people have already got the butter.

Mr. Jacoway: I know they have got the butter, but what effect does that have on the creamery market of the country? Does it bring that butter into competition with these people?

Dr. Ramsay: That is purely a commercial proposition that I am not prepared to answer.

Mr. Voigt: Doctor, I think you will admit that this compound does, to some extent, displace milk or regular condensed milk.

Dr. Ramsay: It might replace to some extent regular milk for cooking purposes, but I do not think it would replace condensed milk so much because condensed milk is so little used, in my experience, for cooking purposes.

Mr. McLaughlin of Michigan: Doctor, what happens to the contents of this can where the can is opened and the contents exposed to the air?

Dr. Ramsay: I have seen these cans standing on the table but I do not know what effect that has or what preservative

there is in it, if there is one. That can be better answered by some of the men connected with the company.

Mr. McLaughlin of Michigan: I suppose it will keep all right in a refrigerator or under refrigeration, but outside of a refrigerator does it get sour or take on any bad quality or taste?

Dr. Ramsay: I have never heard of any of it souring and I have never seen any of it sour. I could not tell you definitely about that because I do not know.

Mr. Davis: May I state in connection with another coconut oil compound which we sell rather extensively, the Nuco Nutmargarine, that pound for pound the Nuco Nutmargarine will hold better and will be less likely to rancidity than a pound of creamery butter.

Mr. McLaughlin of Michigan: Right along that same line, Doctor, what takes place when a can of condensed milk is opened and stands exposed to the air?

Dr. Ramsay: From my own experience with it it keeps all right except for the flies getting into it or something of that sort.

Mr. McLaughlin of Michigan: How long would it keep in good shape?

Dr. Ramsay: I have seen condensed milk last quite a long while but I have never timed it.

[fol. 370] Mr. McLaughlin of Michigan: How long? A minute under water is a long time.

Dr. Ramsay: My impression is they keep condensed milk some two or three weeks.

Mr. McLaughlin of Michigan: Opened?

Dr. Ramsay: Yes.

Mr. McLaughlin of Michigan: You do not know what the effect of exposure of this product for that length of time would be?

Dr. Ramsay: No; I could not answer that.

The Chairman: Is it left in the can, or removed from the can?

Dr. Ramsay: I have seen them leave it in the can and pour it in the tea or coffee from the can.

The Chairman: Then it is left in the can after it is opened?

Dr. Ramsay: As far as I know.

Mr. McKee: If you will permit me, Mr. Chairman, I would like to make a statement about that. The keeping qualities of evaporated whole milk and of the compound

are about the same. The recommendation is that the contents of the can be poured out when the can is opened, but by reason of the fact that both products are sterilized by a high degree of heat their keeping qualities are practically the same.

The Chairman: We are very much obliged to you, Doctor.

Mr. McKee: May I ask the doctor one question? Is it not a fact that a large percentage of infants are nursed at the breast among these poor people?

Dr. Ramsay: Most of them; yes sir; the great majority of these children are breast-fed babies. It is really rather an exception to find one of these mothers who will resort to artificial feeding at all.

Mr. Jacoway: And that is the best way to feed a baby, is it not?

Dr. Ramsay: It is; it is the proper way to feed a child. In fact, I think that is the way I got my growth.

The Chairman: Who is the next witness?

Mr. Davis: Mr. Chairman, on the question of the vitamines in milk and the relation of skimmed milk to that question of vitamines, may I read very briefly from the American Food Journal, in which they say in an editorial:

Dr. Williams, of Chicago University, has recently reported a series of experiments in which he caused a single cell of yeast to multiply by the use of the so-called fat soluble vitamine and water soluble vitamine. His experiments seem to indicate that the so-called fat soluble is less important as a growth factor than the so-called water soluble, as the former caused the single cell to multiply less than did the latter.

Mr. Voigt: Where is that published?

Mr. Davis: I do not know just where it is published; I have only one page. They go on:

If Dr. William's theory is definitely proven, it will indicate that too much importance is given to the growth-promoting properties in the butter fat, and not enough importance is being gigen to the growth-promoting properties in the milk which is left after the butter fat is taken off.

The definite establishment of the truth of this theory would tend to call attention more sharply to the terrible waste of dairy products which is being permitted to go on year after year. About 30,000,000,000 pounds of skimmed

milk is being fed to stock or wasted each year because its importance as a human food has not been emphasized enough. In bulk this amounts to about one-third of the entire output of human food by the dairies.

Skimmed milk contains practically all of the proteins, the carbohydrates, and the mineral salts of the whole milk. In addition it contains practically all of the water soluble vitamines which do not leave the milk when the fat is skimmed off.

Mr. McLaughlin of Michigan: If this skimmed milk is so valuable, why is it that a cow brings a higher price as there is a higher percentage of butter fat in her milk?

Mr. Davis: It may well be that the butter fat is very valuable, but the skimmed milk is also very valuable.

Mr. Voigt: In that connection, the skimmed milk could still be saved if the people operating the condenseries turned out skimmed milk instead of making the substitute?

Mr. Davis: That may be, but the manufacturers of these products, such as Hebe, have made a use of skimmed milk which the condenseries have not made before.

Mr. Jacoway: Your argument is that this thing is not as good as butter fat, but that it still serves a useful purpose?

Mr. Davis: It is as good as butter fat except in one particular, and that is for infant feeding. For adult feeding it is as good.

Mr. Jacoway: You mean to say that the contents of this can are as good for infant feeding as a higher grade of milk?

Mr. Davis: No; I just said that for infant feeding it is not as good. Only in the case of infant feeding has it been established that it is not as good as whole milk or condensed milk.

Mr. Jacoway: But it does perform a useful function?

Mr. Davis: Absolutely. Before a product like Hebe was made the skimmed milk was dumped into the gutter or fed to hogs.

Mr. Jacoway: And so it provides a market for skimmed milk?

Mr. Davis: Absolutely; it provides a big market for skimmed milk.

Mr. Jacoway: Which would be more limited if this product were not on the market?

Mr. Davis: Yes, sir.

Mr. Jacoway: Then it is a benefit to the man that owns the cows?

Mr. Davis: Yes, sir.

Mr. Jacoway: And a detriment to nobody?

Mr. Davis: Exactly, excepting as it is fed to children, and as I say, it is not fed to children to any such extent as has been charged.

The Chairman: Do you know what price is charged for this skimmed milk for this purpose?

Mr. Davis: I think that Mr. McKee can tell us that better. Can you tell us, Mr. McKee, what price you pay for the skimmed milk?

Statement of Mr. Paul R. McKee, Representing the Hebe Co., Chicago, Ill.

Mr. McKee: It is our custom to buy the whole milk; we buy that in order to get the best quality of skimmed milk. It is just as necessary to get fresh, pure, skimmed milk for the manufacture of this product as it is to get fresh, pure, whole milk for the manufacture of evaporated whole milk.

The Chairman: You operate a creamery in connection with the manufacture of this product?

Mr. McKee: We operate a creamery. We have bought skimmed milk in very considerable quantities at various times.

The Chairman: At what price?

Mr. McKee: That depends upon market conditions. We have paid as high as $1 a hundred for it, and we have paid down as low as 50 cents.

[fol. 371] The Chairman: What would it be worth to-day?

Mr. McKee: What would skimmed milk be worth to-day? I should say about 35 cents.

The Chairman: And it is worth more for this purpose than it is for the feeding of hogs, and calves?

Mr. McKee: Unquestionably it would be. According to the information we have from the Department of Agriculture, from 70 to 80 per cent of the value of the skimmed milk is used up by the animal in living, and about 30 per cent of the food value of the skimmed milk is returned in the form of the food value in the animal.

Mr. Voigt: Would not that hold good as to all other food that is fed to the animal?

Mr. McKee: I think very likely it would, Mr. Voigt.

The Chairman: Where the patrons of a creamery sell the skimmed milk to the creamery, do they continue to feed calves too?

Mr. McKee: Yes; where they have a sufficient number of calves or hogs to feed it to they use it in that way.

The Chairman: Which is the most profitable to the farmer?

Mr. McKee: The best answer I can give to that is that where we are operating plants and we buy the whole milk in competition with the creameries we get the milk, and we get the milk because we pay a price which is the greatest benefit to the producer.

Mr. Voigt: What is the present cost of the coconut oils?

Mr. McKee: The present price is 12 cents.

Mr. Voigt: Twelve cents a pound?

Mr. McKee: Twelve cents a pound.

Mr. Voigt: How has that varied in late years?

Mr. McKee: Of course, during the war it was considerably higher. I should say that it got up to 17 or 18 cents, or perhaps a little higher than that.

Mr. Voigt: And at the present time it is 12 cents a pound?

Mr. McKee: Twelve cents a pound; yes, sir.

Mr. Voigt: You use that coconut oil just as it comes to you in making this compound?

Mr. McKee: We buy the refined cocoanut oil. The copra is imported into this country. The copra is the meat of the cocoanut. It is refined in this country by the cocoanut oil from the refineries in America. As I understand it, the labor employed in the refining of the oil is employed in this country.

Mr. Voigt: But you use it just as it comes to you, and mix it with the skimmed milk?

Mr. McKee: Yes.

Mr. Voigt: What quantity of cocoanut oil goes into a one pound can?

Mr. McKee: Seven and eight-tenths per cent.

Mr. Voigt: What would that be in weight?

Mr. McKee: I have some figures on that. If I may be permitted to do so, I should like to give you a concrete case, Mr. Voigt.

In one case of the compound and of evaporated milk in the tall cans, such as you have before you, there are 48 one-pound cans. Each can contains the same amount of fat. In

the evaporated milk 7.8 per cent of that 48 pounds is butter fat. In the case of the compounds the 7.8 per cent of the 48 pounds is *cocoanut oil. So in the case of each of the* products there is 3.744 pounds of fat. The value of butter fat to-day, on the present market, is 35 cents. That is the butter price. The butter fat price is 30 cents. If you add to that the overrun and deduct that from the cost of manufacture you will get about 31 cents for the butter fat. That may vary a little bit.

The Chairman: But you do not retain the butter fat with the milk?

Mr. McKee: No; I was giving what we got out of the butter fat which we extract from the milk, as a matter of cost.

Mr. Voigt: I want to find out what this stuff actually costs.

Mr. McKee: May I complete this statement, and then if I do not make it perfectly clear I shall be glad to answer any questions.

In order to ascertain the value of the butter fat which we take out, we multiply the number of pounds of fat in a case of the evaporated milk by 35 cents, and we find that is $1.31. That is what we get for the butter fat that we take out of the milk.

The Chairman: How much milk?

Mr. McKee: Out of the amount which it would take to make a case of milk—105 pounds. Then the cocoanut fat which we substitute for the butter fat costs us 12 cents. That is the present market. Then the cost of that 3.744 pounds of butter fat would be 44 and a fraction cents—about 45 cents. So the gain to us by the extraction of the butter fat and the substitution of the cocoanut oil is a little over 86 cents a case. To-day the price of evaporated milk in carload lots in Chicago, where we sell it, is $5. The price of Hebe in Chicago in carload lots is $3.60. In other words, we get $1.40 more a case for evaporated milk than we get for the compound, making a difference in the selling price of the two products of $1.40.

If you subtract from that the 86 cents which we gain by the substitution of the coconut oil for the butter fat you will find that there is a potential greater profit in the sale of a case of evaporated milk than there is in the sale of a case of the compound. That differential varies, of course. That is the differential which exists to-day.

I give you those figures in support of the proposition that there is not an unreasonable profit in the manufacture of this product, and we have not engaged in the manufacture of this compound because there is an unreasonable profit or a profit so much greater than there is in the manufacture and sale of evaporated milk. If the two products sold for the same price it would be true, but they never have. The differential which exists to-day represents an average differential which has always existed in the price received by the manufacturer for the two products.

Mr. Voigt: Now, Mr. McKee, will you please follow my figures for a minute? You say that skimmed milk is worth 35 cents per hundred at the present time?

Mr. McKee: Yes.

Mr. Voigt: And you say that the contents of a case of 48 cans is 48 pounds?

Mr. McKee: Yes. This is raw skimmed milk I am talking about—35 cents. There would be 105 pounds in a case.

Mr. Voigt: Now, 7.8 per cent of the 48 pounds is coconut oil?

Mr. McKee: Yes, sir.

Mr. Voigt: That would make 3.74 pounds of coconut oil, at 12 cents a pound, which would be 45 cents?

Mr. McKee: Yes, sir.

[fol. 372] Mr. Voigt: Taking out the 3.74 pounds of coconut oil would leave 44.25 pounds of skimmed milk?

Mr. McKee: Yes; reduced by condensation from 105 pounds. This product is a condensed product. The bulk of it is reduced by condensation from 105 pounds down to 48 pounds.

Mr. Voigt: From 105 pounds?

Mr. McKee: Yes; it takes 210 pounds of skimmed milk to make 100 pounds of the finished product.

Mr. Voigt: Then 105 pounds of skimmed milk would make a little more than 48 pounds of this product?

Mr. McKee: We use 210 pounds of skimmed milk to make up two cases. That is the manufacturing formula for the manufacture of this compound.

Mr. Voigt: That is, there are 105 pounds of skimmed milk in the 48 cans?

Mr. McKee: That is correct.

Mr. Voigt: Well, at 35 cents that would make about 36 cents for the skimmed milk?

Mr. McKee: Yes.

Mr. Voigt: So then there is 36 cents worth of skimmed milk and 45 cents worth of coconut oil in the 48 cans, which would make the total cost to you of the contents of the 48 cans about 81 cents?

Mr. McKee: I think that is substantially correct. The manufacturing costs—that is, the cost of the cans, of the labels, of the labor, and the overhead—are practically the same. There is a little more labor in the manufacturing of the compound than there is in the manufacturing of the whole evaporated milk.

Mr. Voigt. That is, the contents of the can actually cost you a little less than 2 cents?

Mr. McKee: Well, you can figure it on that basis.

Mr. Voigt: Eighty-one cents for 48 cans. And the can costs you about a cent?

Mr. McKee: Well, I would not want to go into the manufacturing costs, Mr. Voigt.

Mr. Voigt: What is the approximate cost of these cans wholesale?

Mr. McKee: I do not know.

Mr. Voigt: Have you some idea?

Mr. McKee: I have not; I am not in the manufacturing end of the business.

Mr. Voigt: You have some rough idea of what the cans cost?

Mr. McKee: No; I have not even a rough idea. We buy the tin plate and make the cans ourselves, and the cost of those cans to us is a matter of the purchase of the raw material, the cost of operation of a tin factory, and the labor and things of that kind with which I am not familiar.

The Chairman: You operate a number of plants, do you?

Mr. McKee: Yes, sir.

The Chairman: Scattered all over the country, are they?

Mr. McKee: Yes; we have about 22 plants scattered from the Pacific coast to the East.

Mr. Ten Eyck: Do you know where those plants are located?

Mr. McKee: Yes. Do you want to know where they are located?

Mr. Ten Eyck: I would not mind having that information in the record.

Mr. McKee: Do you mean by States?

Mr. Ten Eyck: Yes.

Mr. McKee: In Washington, Oregon, Idaho, California, Wisconsin, Illinois, and Michigan.

Mr. Ten Eyck: Are there not any of them in the East?

Mr. McKee: Not plants that have been established by the Carnation Co. We have recently acquired plants heretofore owned and operated by the Mohawk Condensed Milk Co., which owned plants in the State of Pennsylvania and the State of New York. They had four plants in the State of New York and five in the State of Pennsylvania. Also there are some plants in the State of Colorado.

Mr. McLaughlin of Michigan: At what places in Michigan are your plants located?

Mr. McKee: The Carnation Co. has a plant at Sparta—a plant we acquired a few years ago that was formerly owned by the Grand Ledge Milk Co., I think.

Mr. McLaughlin of Michigan: Just outside of my district?

Mr. McKee: Yes.

Mr. Voigt: Where are your plants in Wisconsin?

Mr. McKee: At Jefferson, Comstock, Sylvan, Chilton, Berlin, and Bridgeland Center.

Mr. Voigt: What part of this Hebe product, roughly speaking, has been manufactured in Wisconsin?

Mr. McKee: I could not give you the percentage, Mr. Voigt.

Mr. Voigt: Can you state approximately?

Mr. McKee: I do not know. We have two plants in Wisconsin where we manufacture it, one at Jefferson and one at Comstock, but during the past eight or nine months we have been producing it only at Jefferson. We have also manufactured it at one plant on the Pacific coast.

Mr. Voigt: What is the price of fresh milk to-day at creameries?

Mr. McKee: Of course, they buy on a butter-fat basis. We are paying $1.50 for 4 per cent milk, and the creameries are paying about $1.20.

Mr. Clarke: It is $1.55 for 3 per cent butter fat up in my district right within 210 miles of New York.

Mr. Voigt: I think it has recently been averaging about $1.75 in Wisconsin.

Mr. McKee: There has been a decline in the price of whole milk in the last 60 days. I know there are some

creameries that have been averaging for the month of May only about $1.05.

Mr. Voigt: When you speak of condensed milk, how far is the milk reduced?

Mr. McKee: To about the same extent, Mr. Voigt.

Mr. Voigt: Two to one?

Mr. McKee: Yes—a little less than that.

Mr. Voigt: Then, if you take the price of whole milk at $1.50 a hundred and you reduce it, say, two to one, the contents of that can would cost you about 3 cents?

Mr. McKee: You are getting into a matter with which I am not familiar. I am not in the manufacturing end of the business except in a general way, and so far as the matter of costs and the various factors that enter into the manufacture of this product are concerned I am not in a position to give you any definite information.

[fol. 373] Mr. Voigt: Well, now, ordinary condensed milk or evaporated milk is pure milk from which the water has been extracted to the extent of one-half, approximately. There is nothing added in the manufacturing operation.

Mr. McKee: No sir.

Mr. Voigt: Now, then, if you take milk at $1.50, which would be a cent and a half a pound, and reduce it one-half by evaporation, of course the pound then would cost you about 3 cents, not figuring in any manufacturing expense. That would be the actual cost.

Mr. McKee: That may be true, as I told you before, and I am not familiar with that.

Mr. Voigt: Do you believe that, through this process you are increasing the market for the products of the cow?

Mr. McKee: We are very firmly of that belief, or we would not manufacture the product. Our experience has been this, from the standpoint of how the manufacture and distribution of this product has affected the sales of evaporated milk. We have had this product on the market for five years. We have advertised it in a national way. We have pushed the sale of it in some sections by demonstration work, by the usual sales methods, and have sold the product in considerable volume. Since the time we put this compound on the market our sales of Carnation milk have increased in the same ratio that they did before we put this product out. We have tested the matter of the sales of the product out to see how it affected the sales of our evapora-

ted milk in some special markets to determine for ourselves whether the sale of this product was creating an additional market for a dairy product or was simply being used as a substitute for milk; and in those cases we found that the sales of Carnation milk increased in the same ration that they did before we put this product on the market.

Mr. Kincheloe: What is this product that you call Carnation milk?

Mr. McKee: That is a whole evaporated milk. We manufacture two products; we manufacture this compound under the trade name of Hebe, and we manufacture whole evaporated milk under the trade name of Carnation.

Mr. Clarke: Who are your competitors in this particular line?

Mr. McKee: There are a number of products on the market. There is one product sold under the name of Caroline.

Mr. Clarke: Similar to this?

Mr. McKee: Similar in all respects, with the exception of a lower vegetable fat content. They use 6 per cent vegetable fat instead of 7.8 per cent. This product is also manufactured by the Badger Condensed Milk Co., of South Germantown, Wis., under the trade name of Majal. The Valecia Condensed Milk Co., of Madison, Wis., put out a compound under the name of Silver Key. The Indiana Condensed Milk Co., of Indianapolis, Ind., put out a compound under the trade name of Nutro. The Nestle Food Co. have a compound on the market under the name of Nyko.

Mr. Clarke: That is manufactured in New York State?

Mr. McKee: I think very probably. They have about 45 plants throughout the country—either own them or have them under lease.

There is one other plant. The Denmark Condensed Milk Co., of Denmark, Wis., sell a compound under the name of Enzo.

Mr. Ten Eyck: Does the State of Wisconsin prohibit the sale of this compound in that State?

Mr. McKee: There was a law passed at the recent session of the legislature prohibiting the manufacture and sale of compounds in that State.

Mr. Ten Eyck: Has that law been signed by the governor?

Mr. McKee: Yes, sir; it becomes effective 90 days from its passage.

Mr. Voigt: In that connection I might say that the senate of Wisconsin passed the bill by a unanimous vote. I am just wondering, if your contention is true that this is a benefit to the dairy industry, why there was not at least one senator in the State of Wisconsin that could not be convinced by the arguments in favor of the bill.

Mr. McKee: Do you want me to go into that situation, Mr. Voigt?

Mr. Voigt: I do not care.

Mr. McLaughlin of Michigan: Wisconsin is the greatest dairy State in the Union. I would like to know what the attitude of the people of that State is toward this measure, and their reasons for their attitude.

Mr. Ten Eyck: I want to take exception to that statement. New York State is the greatest dairy State. I got that statement not over a month ago from the Department of Agriculture. Our dairy products are worth more than those of any other State in the Union.

The Chairman: You were going to discuss the history of the legislation, were you?

Mr. McKee: Simply what led up to passage of this bill. The agitation was originally started in Wisconsin by Hoard's Dairyman against this product, they taking the position that the manufacture and sale of this product was inimical to the dairy interests, that the sale of a milk compound was the sale of evaporated milk, and that it brought the vegetable oil, coconut oil, into competition with butter fat. A campaign was started in the State, largely under the guidance of that publication at first, and then in cooperation with the Farm Bureau. The State was of course very widely canvassed by that organization in support of that bill. Circulars were sent out to the various units of the Farm Bureau, setting forth that the continued manufacture and sale of this product was going to destroy the dairy industry, that it was akin to filled cheese, that it was a fraud, and calling upon the dairymen of the State to write to their representatives, their senators and assemblymen at Madison to vote for this bill, for the reason that if they did not do so the dairy industry would be destroyed.

No attempt was made to set forth to the dairymen what the merits of the product were in relation to the dairy busi-

ness. They were not told that the product was being sold under an honest label. They were not told that an honest effort was being made to establish a sale for this product for what it was. They were not told that 210 pounds of skimmed milk were required to make 100 pounds of the finished product. They were not told that an honest attempt was being made to establish a market for the by-product of the dairy farm as a food for human beings. They were led to believe the product was a dishonest one, that it was being dishonestly advertised and was dishonestly sold, that it was akin to filled cheese, and that the result which would follow would be exactly the same as the [fol. 374] effect upon the cheese business of the manufacture and sale of filled cheese—which, as I stated here yesterday, was a fraudulent product in its inception and was never sold upon its merits but was masqueraded as the real article.

The natural result was that every member of the legislature received petitions in immense volume. I talked with many people who signed those petitions. I have lived in Wisconsin since 1900. I live in a country district and own a farm and am in the farming business, and I know a great many of these people very well indeed. I talked with a great many of them who signed these petitions, and they frankly told me that they had heard only one side of the story and did not know what the merits of the case were. I talked with many members of the legislature and explained to them our side of the case, our conviction that the manufacture and sale of this product was a benefit to the dairymen——

Mr. McLaughlin of Michigan: Did you or anybody representing your interests appear before the committees of the house and senate of Wisconsin?

Mr. McKee: We did, and these same men very frankly told me that they could not do otherwise than vote for that bill regardless of how they might personally feel with reference to the merits of the proposition. We were few and they were many. Sentiment was created in favor of that bill upon the ground that it was a fraud, and not after full information as to the merits of the controversy.

Mr. Voigt: I think in that connection it should be stated that the fight on this bill in the Wisconsin Legislature was the hottest fight that ever was waged by or against the

dairying interests of a State, and your side of the case was fully presented to the committees of the legislature.

Mr. McKee: Yes; and the assembly committee reported the bill out without recommendation. It never was shown in any of those hearings, nor was it ever established, that the manufacture and sale of this product actually was to the detriment of the dairy business, it never was shown that this product was unhealthful. It never was shown that it was unwholesome or that it was an indigestible article of food.

Prof. Hart, of the University of Wisconsin, who appeared before that committee and gave testimony similar to that adduced here by Prof. McCollum, at the end of the hearing was asked if he had ever personally heard of the product being used as an infant food, and he said no, that he never had. He was also asked if it was occasionally used, say for 7 or 10 days, inadvertently, whether there would be any harmful effects, and he said no. He was also asked if there was anything in the product which was unwholesome or which was not nutritious, and he said no. Furthermore, he said that the experiments which he had conducted with these two foods, one with cottonseed oil and one with evaporated milk showed the same reactions after a continuous feeding of anywhere from 90 to 120 or 150 days.

Mr. Voigt: There are laws prohibiting the manufacture of this product also in California, Utah, Ohio, and Maryland, I believe?

Mr. McKee: You have been misinformed as to prohibitory legislation in Ohio or in Maryland. There is a law on the statute book in California which requires the manufacturer of these compounds to take out a license, and also requires the wholesaler and the retailer to take out a license. The same bill was passed in Utah. There has been no law passed by any legislature directly prohibiting the manufacture and sale of a wholesome article of food like this, except in the State of Wisconsin.

Mr. Voigt: Well, the effect of the legislation in the States I have mentioned is to prohibit the product?

Mr. McKee: Yes. In the State of Ohio there is a law upon the statute books, passed about 35 or 40 years ago, which establishes a standard for evaporated milk. The attorney general of the State ruled that this product could not

be sold, by reason of the fact that it did not contain the ingredients mentioned in that act. Issue was taken upon that question, and it finally went to the supreme court, in the case of Hebe v. Shaw. That case was taken directly into the United States district court on an application for an injunction to restrain the authorities of the State of Ohio from prosecuting the dealers. They there construed that law as prohibiting the manufacture and sale of condensed skimmed milk, and after construing the law they then made a finding of fact that Hebe was skimmed milk and, therefore, within the prohibition of the act.

That case got to the Supreme Court of the United States, and was finally decided by a divided court, four voting in the affirmative and two joining with Justice Day in a dissenting opinion:

Mr. Voigt: The upshot was that the Supreme Court of the United States decided that the State had a right to prohibit the sale and manufacture of this article in Ohio?

Mr. McKee: Yes, they did that.

Mr. Tincher: We would either have to prohibit it under the public health provision of the Constitution—if we prohibit the manufacture and sale of it—or tax it out of existence. Is there anything in that Supreme Court decision that would indicate that we would not have the power to do it under the public health provision?

Mr. Voigt: There are a number of Supreme Court decisions which hold that Congress has the right to bar from interstate commerce any article which is considered deleterious to the public health or which it considers will directly or indirectly operate as a fraud on the public.

Mr. McKee: Let me correct an impression which the committee may get from a not quite full statement of that, Mr. Voigt.

The decision of the United States District Court and of the Supreme Court of the United States was not based upon the theory that this product was an unwholesome article of food, because the United States District Court said in its opinion that no contention was made that Hebe was unhealthful or a nonnutritious article of food. That opinion was based entirely upon the theory that the legislature had the right to prohibit the manufacture and sale of a wholesome article of food if it could be used as an instrument of fraud.

Mr. Voigt: Yes, that is correct. I have read the Hebe decision in the Supreme Court of the United States, and the Court says in that case that if the Legislature of Ohio was of the opinion that the label was not a sufficient protection [fol. 375] to the public, and that notwithstanding the label a fraud could be practiced upon the public, either by the manufacturer or by the retailer, the State had the right to suppress the article.

Mr. McKee: If the question was debatable. But the legislature could not very well have had in mind legislating to prohibit the manufacture and sale of this particular product, in view of the fact that the law was passed about 30 years before it was ever put on the market; and that is where Justice Day and Justice Brandeis and Justice Van Devanter dissented from the majority opinion.

The Chairman: It is now 12 o'clock. The tariff bill is up for consideration this afternoon, and I take it the members of the committee will want to be on the floor. What is the pleasure of the committee? How many more are there to be heard?

Mr. Davis: If it please you, Mr. Chairman, we have only two or three more, who will speak very briefly. I should say we will require about 20 minutes more if we can have it.

The Chairman: Will that finish it up?

Mr. Davis: I think so.

Mr. McKee: There was some correction to be made in regard to our exports and the manufacture of these compounds as evaporated milk compounds.

Mr. Kincheloe: We could not close to-day anyhow if we are going to have the chief of the Bureau of Chemistry and the chief of the Dairy Division of the Department of Agriculture here to-morrow. Why not adjourn until 10 o'clock in the morning?

Mr. Davis: I would like to say, Mr. Chairman, that Mr. McKee has not finished, and I am sure he has some further valuable facts in this connection that it would be of interest for the members of the committee to hear.

Mr. Voigt: I move we continue until a quarter of 1.

The Chairman: Will it be satisfactory to close the hearing in half an hour, on the part of the opponents of the bill?

Mr. Davis: May I ask when it is proposed to have the representatives of the Bureau of Chemistry here? Will it be to-morrow?

The Chairman: That is at their pleasure.

Mr. Davis: If they are coming at another time then may we have some further time?

The Chairman: No; the understanding was that we were going to close the hearing now. We heard the proponents of the bill, and now we have given you this time and we are supposed to be through.

Mr. Davis: I would like to have some time for these other gentlemen in addition to Mr. McKee to finish their statements.

Mr. McKee: I desire only a few minutes, and that is upon the export proposition.

The Chairman: Can you conclude in the time allotted?

Mr. Davis: I think that by a quarter to 1 we can finish.

Mr. McKee: I was not present but I have been informed that it was stated in the hearing that the production of evaporated milk was reduced in 1920 as compared with the production in 1919 by 50 per cent. I have these figures here, taken from statistics that I got from the Bureau of Chemistry—not the final figures, but, as I understand it, the final figures so far as relates to the production of evaporated milk and compounds.

This shows that the decrease in the number of pounds of evaporated milk from 1919 to 1920 was equivalent to 18 per cent, and that in the same period the export of evaporated milk in pounds decreased practically 400,000,000 pounds.

Mr. Clark: What does that represent in percentage?

Mr. McKee: The reduction in pounds of evaporated milk production was 216,000,000. I would deduce from those figures that the consumption of evaporated milk in this country, domestic consumption, increased by the difference between 216,000,000 and the 400,000,000. The number of pounds of compounds increased from 1919 to 1920, 21,000,000 pounds. That would be about 10 per cent of the decrease shown in the manufacture of evaporated milk, so that it can hardly be charged that the increase shown in the manufacture of compounds was responsible for the decreased production of evaporated milk.

Now, the statistics show that the number of pounds of evaporated milk exported from the country in 1920 decreased over 50 per cent. Those figures are taken from the Market Reporter, published under the supervision of the Department of Agriculture.

Mr. Voigt: I do not think your figures count very much in these times as export trade in all lands has fallen off quite seriously. Is it not true that the manufacturers of condensed milk have been carrying very large stocks that they could not get rid of in 1920?

Mr. McKee: I will say that in our own case we accumulated stocks in the fall of 1920. I think everybody in the business did. That was due to the decreased foreign demand. After the first of January the demand for evaporated milk went back to normal, and so far as our country is concerned we disposed of all of our stocks before the first of May. I think the volume of business done in the domestic sale and distribution of evaporated milk was greater in the three months of this year than it has been in any corresponding period, excluding the periods when large quantities were going to Europe for the Army and the civilian population. I think the domestic consumption of evaporated milk in this country did not slump off very greatly, but the jobber and the wholesaler and the retailer were out of stocks for a long time, due to their financial condition, attributable to the sugar situation and the shrinkage in value of the stocks they were carrying.

The point I wanted to make was that it is not fair to charge against the manufacture and sale of these compounds the shrinkage in manufacture and sale of evaporated milks. To leave that unchallenged would be to leave the impression that these compounds were displacing the evaporated milk.

I think that is all I have to say.

The Chairman: Why are these plants located in the far western States?

Mr. McKee: I might explain that when you locate an evaporated milk plant you have got to locate that plant where there is production, where there is milk.

The Chairman: And are those western States productive of milk?

Mr. McKee: Yes; they have a very large dairy interest in eastern Washington and in Oregon and Idaho.

Mr. Clarke: And is not that where the Carnation Co. originally developed its business?

[fol. 376] Mr. McKee: It was originally a Pacific coast company, under the name of the Pacific Coast Condensed Milk Co. When we locate a plant it represents an investment of anywhere from $175,000 to $250,000, and we can

not go into a section and develop the dairy business. We have to go into a section of the country where the cows are and where the milk is, and we have to get that supply of milk by paying better prices than they are receiving for it.

Mr. Davis: Mr. Chairman, may I ask to have spread on the record a letter from Arthur A. Quinn, who is the president of the New Jersey State Federation of Labor, with reference to this measure, without taking the time of the committee to read it?

The Chairman: Without objection it will be so ordered.

Mr. Davis: I would like, if it please you, Mr. Chairman, to introduce also, on the question of the diseases of children and the relation of vegetable fats to that matter, an extract from the American Journal of diseases of children. I will read at this time just one short paragraph from the records of the United States Department of Agriculture, Bulletin, 505, which is quoted in that article, in which it is stated that the authorities—

Have tested the digestability of vegetable fats and determined that all those tested, including coconut, peanut, and corn oil (with the exception of cocoa fat) were digested quite as well as milk fat. The observations herein reported were made on children who received a mixed diet containing varying amounts of vegetable fat in the form of nut butter and corn oil.

They state, finally:

The observations published in this paper indicate that corn oil and nut butter (the vegetable fats studied) are valuable foods for children; are exceedingly well-borne; and are apparently digested and absorbed with ease. We feel, therefore, warranted in the belief that these foods may be safely introduced in the regular diet of children and that to a considerable degree they may be substituted for the more expensive milk fat given either as milk or butter, but they should ne-er entirely replace milk fat. How much milk fat is needed to furnish the amount of fat soluable vitamine required for normal growth and nutrition has not yet been determined.

May I also introduce, Mr. Chairman, an editorial from this week's issue of the Journal of the American Medical

Association, referring specifically to this product. I think it will be of interest to the members of the committee to read that.

The Chairman: Without objection it will be inserted in the record.

Mr. Davis: May I submit also extracts taken from the United States Department of Agriculture Bulletin No. 505, relative to certain tests to determine the digestibility of some vegetable fats, and referring to investigations made on peanut oil and coconut oil, and the data on digestion experiments with reference to the same in a simple mixed diet. I think that will be of interest to the members of the committee as coming from an official source.

The Chairman: You request that that be inserted in the record?

Mr. Davis: Yes, sir.

The Chairman: Without objection it will be so ordered.

Mr. Davis: May I also introduce a letter received by us, the Nucoa Butter Co., under date of July 25, 1919, from the Department of Agriculture, Bureau of Chemistry, bearing on the nutritive value of coconut oil, with reference to our product? In this particular case they refer to the nut margarine which we manufacture, which substantially raises the same question as is raised in this hearing. Our product is made of skimmed milk, partial whole milk, coconut oil, and peanut oil, used as a hardener. It will be of interest to this committee to hear what is meant by "nutrition." Referring to the nutritive value of coconut oil, they say:

> It is necessary to bear in mind that these words are used in several distinct significations which will be discussed separately and also that there is no exact measurement of real nutritive value; that is to say, in discussing nutritive value it is necessary to make certain hypotheses in regard to nutrition and in the light of these hypotheses attempt to evaluate the nutritive value.

Mr. McLaughlin of Michigan: Are you going to read that?

Mr. Davis: I would like to read some extracts.

The Chairman: It will be in the record, and we will read it.

Mr. Davis: All right, sir; I will ask that this be put in the record.

Mr. Voigt: That is quite a long letter, and it has no bearing on this compound.

Mr. Davis: Yes, sir; it has a distinct bearing on the value of coconut oil and that phase of it. I do not think that this committee has heard enough on that phase of the investigation.

The Chairman: You are now introducing the oleomargarine question. That is rather a big question.

Mr. Davis: No, sir; this is only on the question of the coconut oil.

Mr. Voigt: Then will you please only copy an extract from the letter which refers to the nutritive value of coconut oil?

Mr. Davis: Yes; that is all that this refers to; it does not mention oleomargarine at any time in the letter.

In connection with coconut oil may I state some facts which may be of interest to the committee? It has been charged that we are not protecting a home industry, an American industry. As a matter of fact; all of the coconut oil that we get, or practically all, comes from the Philippine Islands. The value of the copra is 4¾ cents a pound. The value of the refined coconut oil is over 12 cents a pound, 12½ cents to be exact, so you can readily see that there is a margin there which comes in through American manufacture and American return to labor and people whom we employ.

The Chairman: Have you any figures on the amount imported from the Philippine Islands and various countries?

Mr. Davis: No; I have not the exact figures.

The Chairman: Can you supply the record with that?

Mr. Davis: I think I can. I would like to introduce Mr. Harry B. Peebles, of Philadelphia. He has had some experience in connection with the actual consumption and of the experience that consumers of the Hebe product have gone through.

Mr. Voigt: Let me ask you one question before you conclude. Do you manufacture a milk compound?

Mr. Davis: No, sir; we do not. We manufacture nucoa, a nut margarine. We do not manufacture Hebe at all. We also sell the refined coconut oil.

The Chairman: Do you refine it?

Mr. Davis: Yes, sir; we have a refinery in the State of New Jersey, with plants at Chicago, Detroit, and San Francisco.

[Vol. 377] (The documents submitted by Mr. Davis, both at the hearing and subsequently by request of the committee, are here printed in full, as follows:)

NEW JERSEY STATE FEDERATION OF LABOR,
Newark, N. J., July 5, 1921.

Hon. GILBERT N. HAUGEN,
Chairman Agricultural Committee,
House of Representatives, Washington, D. C.

MY DEAR CONGRESSMAN: I have learned to-day (Tuesday, July 5) that a hearing will be held on House bill 6215 on Wednesday, July 6. I had intended to attend this hearing in opposition to the bill, but on account of the short notice given of the hearing it will be impossible for me to be present. I therefore take this means to voice my opposition against the measure and sincerely hope that the committee will refuse to give it their favorable consideration, as I consider such legislation not only wrong but also vicious.

It is evident that the real purpose back of the bill is to drive from the market pure and wholesome food products that are no doubt successfully competing with certain interests who are desirous of establishing and maintaining a monopoly in the manufacture and sale of their own products. My opinion is that one class of manufacturers of food products is calling upon Congress to help them to the passage of House bill 6215 to destroy competition. I am convinced that such is the case and that House bill 6215 is special and class legislation of the worst sort and I firmly believe that the enactment into law of such a bill would, in the words of a resolution adopted at a labor convention held recently in Camden, N. J., "establish a precedent which would invariably be followed in legislation fostered by special interests seeking to drive competitive products from the market, thus establishing a monopoly in the manufacture and sale of their products."

We are opposed to the passage of the bill not only for the reason that we consider it class and special legislation but we are also opposed to it on account of the economic question involved, and for these reasons I sincerely hope that your honorable committee will either refuse to give the bill favorable consideration or postpone the hearing, as I

would like to appear in person before your committee in opposition to this class legislation.

Very sincerely, yours,

ARTHUR A. QUINN.

P. S.—Attached herewith please find a copy of the resolution referred to.

[Extract from American Journal of Diseases of Children, vol. 18, p. 157, by Holt, Courtney, and Fales.]

During the last few years there has been a steadily increasing use of vegetable fats, especially nut butter, in the diet of children. This has been due chiefly to the scarcity and the greatly increased cost of milk and butter. Recently vegetable fats have been used extensively both in the wards and out-patient department of this hospital. It seemed fitting, therefore, that a study of fat metabolism should include observations on children taking certain of these vegetable fats.

The number of cases in which laboratory studies were made is large enough to allow some conclusions to be drawn. It is not intended in this paper to suggest that vegetable fats are the equivalent of milk fat or can entirely replace it in the dietary of children. It has been shown that milk fat contains a constituent necessary for the normal growth and maintenance, to which the name of fat soluble A or fat soluble vitamine has been given. It has been found not to be present in vegetable fats to any considerable extent. Milk and butter are the foods which most easily provide a supply of this fat soluble vitamine ample for the needs of children. As yet the minimum quantity of this fat soluble required by the growing child has not been determined. The total fat requirements of children, however, exceed the amount of milk fat which is needed to supply sufficient quantities of these vitamines. Vegetable fats, if equally digestible, may therefore be substituted to a considerable degree for milk fat.

Longworthy and Holmes (U. S. Department of Agriculture Bulletin No. 505) have tested the digestibility of vegetable fats and determined that all those tested, including coconut, peanut, and corn oil (with the exception of cocoa fat) were digested quite as well as milk fat. The observa-

tions herein reported were made on children who received a mixed diet containing varying amounts of vegetable fat in the form of nut butter and corn oil.

For nut butter, several of the various brands on the market were used. Nut butter consists mainly of coconut oil, which in turn consists mainly of glycerides of palmitic and oleic acid; in this respect resembling milk fat but containing a much smaller proportion of olein than does milk fat. The melting point of nut butter is slightly lower than that of milk butter.

In order to investigate the digestibility of corn oil and nut butter, analyses were made of the stools of children taking varying amounts of these fats. The feces were collected, dried, and analyzed, according to the procedure followed in previous investigations of fat in stools. The distribution of fat in the stools when the diet contained a considerable proportion of vegetable fat shows no striking variation from the findings when the diet did not contain vegetable fats in significant amounts. The soap percentage is usually somewhat lower and the neutral fats somewhat higher. The fat excretion from the alkaline stools when the vegetable fat was nut butter is somewhat less than when the fat intake was mainly milk fat.

In order to study the effect in the composition of the stools, the fat retention and the general condition when vegetable fat is substituted for milk fat in varying proportions in a mixed diet, nine children were observed for long periods. In reporting the results of this study each child is considered separately.

Case No. 2.—Child showed excellent digestion of vegetable fats, both of nut butter and corn oil, the percentage of the intake retained being usually considerably higher than the average found for the general mixed diet.

Case 6a.—Child showed excellent retention of fat both when nut butter and corn oil formed part of the intake. The percentage of intake retained was better with nut butter. The fat percentage of dried weight in the stools and the total fat excretion were higher with corn-oil fat than when nut butter was used.

In the following cases a preliminary observation was made with a diet containing one quart of milk but no butter. The amount of milk was then reduced to about 20 ounces

and a moderate amount, from 8 to 16 grams of milk butter, was added to the diet. The milk butter was then replaced by an equal amount of nut butter. Partially skimmed milk with about 1.8 per cent of fat was then given and a larger amount, from 18 to 26 grams, of butter given, first milk butter, then nut butter. Finally fat free milk was given with a still larger amount, from 30 to 36 grams, first of milk butter and then of nut butter.

Case 6b (*R. L.*).—In this case two points are to be noted in regard to the fat percentage of dried weight in the stools. (1) As the proportion of fat in the form of butter increased the percentage of dried weight in the stools decreased. (2) When nut butter replaced the milk butter the fat percentage of dried weight was much lower than with the same proportion of milk butter. The fat excretion was about twice as great when milk butter was given as when nut butter was given and the percentage of fat intake retained considerably higher with the nut butter than with a corresponding amount of milk butter. The child showed excellent digestion of nut butter, but there was little or no gain in weight during the period when nut butter was given. This can perhaps be attributed to an attack of measles and during an acute illness the food ration was greatly reduced.

Case 7.—With this child the fat excretion was never large and showed no constant relation to the kind or amount of fat. The percentage of fat intake retained was always fairly high.

Case 8.—In this case the fat excretion when the nut butter was included in the diet was less than the normal average for mixed diet and the percentage of fat intake retained higher than normal. With milk butter the fat loss was greater and the percentage of intake retained lower.

Case 9.—In this case the fat excretion was never large and the percentage of the fat intake retained always good, regardless of the amount and kind of fat in the diet. The child digested milk butter and nut butter equally well.

Summary.—In general it can be truthfully stated that in no single instance was there any evidence that the vegetable fat given caused any disturbances of digestion. No child showed any impairment of appetite. They took the fats well and in some cases eagerly. The increase in weight was on the whole quite as uniform and as good with nut

butter as with milk fat; the only exception being in the case of R. L. (case 6*b*) as above noted.

Conclusion.—(1) The stools of the children receiving a considerable proportion of vegetable fat did not differ essentially in appearance from those of the children receiving mainly milk fats.

(2) The fat percentage of dried weight in the stools averaged somewhat lower when nut butter was taken than when the fat in the diet was mainly milk fat.

(3) The soap percentage of total fat in the stools was usually a little lower and the neutral fat a little higher with vegetable fat than when the fat of the diet was mainly milk fat.

[fol. 378] (4) When nut butter was taken the fat excretion of the alkaline stools was lower and in the acid stools it was higher than when the diet did not contain vegetable fat.

(5) The individual children observed for considerable periods with changes in the kind and amount of fat intake showed quite as good digestion of vegetable fat as of corresponding amounts of milk fat and no unfavorable effects on general health or nutrition were observed.

The observations published in this paper indicate that corn oil and nut butter (the vegetable fats studied) are valuable foods for children; are exceedingly well-borne; and are apparently digested and absorbed with ease. We feel, therefore, warranted in the belief that these foods may be safely introduced in the regular diet of children, and that to a considerable degree they may be substituted for the more expensive milk fat given either as milk or butter, but they should never entirely replace milk fat. How much milk fat is needed to furnish the amount of fat soluble vitamine required for normal growth and nutrition has not yet been determined.

[Journal of the American Medical Association, July 2, 1921.]

CURRENT COMMENT—TRYING TO KILL THE MILK COMPOUND PROJECT.

Until within recent years vast quantities of skimmed milk were wasted or its food value used in uneconomical

and unscientific ways. Then there developed an industry for the purpose of making such skimmed milk more available to the consuming public by adding to it edible fats or oils from other sources. These milk compounds, obviously, could not and did not take the place of milk as an infant food; they did, however, furnish an inexpensive and valuable food, and because of these qualities they quickly attained public favor. Since they have become popular—or, possibly, because they have become popular—certain competing interests have attempted to bring about legislation which, for all practical purposes, would eliminate compounds from the market. Such legislation was attempted in the States of Washington, New York, New Jersey, and Pennsylvania, but the bills failed of enactment. More recently such legislation has been pushed in Wisconsin, and the law has passed both houses of the Wisconsin Legislature. The fight is now being carried to Congress, and three bills have been introduced which, if enacted, would practically destroy the milk compound industry of the United States. With the trade fight—if such it is—the medical profession is not concerned. Those that are attempting to destroy the business, however, are doing so largely under the guise of protecting the public health. The arguments are fallacious.

Such compounds of skimmed milk and vegetables as are on the market, so far as we know, are frankly and honestly labeled and are advertised for what they are. In at least some instances the label specifically declares that they should not be used for infant feeding, but recommends them for cooking and baking, and expressly defines them as mixtures of evaporated skimmed milk and vegetable fat. In skimmed milk we have protein in one of its most valuable forms. If wholesome edible fats of vegetable origin can be added to skimmed milk, and thus make mixtures that are available as inexpensive food or cooking accessories, every consideration of public health and economics favors such mixtures, provided they are frankly and honestly labeled for what they are. The present legislation pending in Congress directed toward the extermination of milk compounds of this character is without justification from the public health standpoint.

The following extracts are taken from United States Department of Agriculture Bulletin No. 505, dated February 13, 1917, relative to certain tests to determine the digestibility of some vegetable fats:

Peanut oil.—The only investigations of the food value of peanut oil of which accounts have been found in the literature are those of Moore (loc. cit.) on the relative digestibility of various edible fats and oils of vegetable origin, which showed that peanut oil was 86 per cent digested by guinea pigs.

Part of the oil used in the experiments reported in this bulletin was prepared by the Bureau of Chemistry of the United States Department of Agriculture and the remainder was purchased in the open market. That obtained from the Bureau of Chemistry was manufactured in its laboratories, and being freshly made was judged to be of most excellent quality. The commercial samples were much older, but were considered excellent in odor, flavor, and color. There was no apparent difference in the flavor of the two samples, which would seem to indicate that peanut oil which has been carefully handled has good keeping qualities, and as noteworthy differences in properties appeared in the digestion experiments no further reference will be made to the source of the oil used.

Four different subjects assisted in the study of this fat, and the usual uniform and standardized conditions of conducting the work were maintained throughout the experiments. The results of the five tests are as follows:

Data of digestion experiments with peanut oil in a simple mixed diet.

Experiment No. 30, subject J. N. F.	Weight	Water	Protein	Fat	Carbohydrates	Ash
	Grams	Grams	Grams	Grams	Grams	Grams
Blancmange containing peanut oil	1,918.0	1,037.0	47.8	340.6	481.2	11.4
Wheat biscuit	241.0	21.7	25.5	3.6	186.3	3.9
Fruit	1,002.0	847.7	4.0	5.0	142.3	3.0
Sugar	52.0	.....	.....	.....	52.0	.....
Total food consumed	3,213.0	1,906.4	77.3	349.2	861.8	18.3
Feces	68.0	.....	23.8	8.8	27.2	8.2
Amount utilized	.....	.....	53.5	340.4	834.6	10.1
Per cent utilized	.....	.....	69.2	97.5	96.8	55.2

Approximately 98 grams of peanut oil or 97 per cent of the total amount of fat in this diet was eaten per subject per day, and as the coefficient of availability, 96 per cent,

implies, the fat was very completely assimilated. This value is increased somewhat by correcting for metabolic products, from which it is calculated that peanut oil is 98.3 per cent digested.

The protein and carbohydrate in the ration were also well utilized for by way of comparison it has been found that in the total food of the ordinary mixed diet 92 per cent of the protein, 95 per cent of the fat, and 97 per cent of the carbohydrate are retained by the body. (Connecticut Storr's Sta. Rpt., 1901, p. 245.)

As the subjects reported no unusual effects as a result of eating this diet, and as no laxative effect was observed, it is apparent that peanut oil of good quality is a useful food, which can be eaten in the same quantities and can be as thoroughly digested as those fats and oils at present most commonly used in the diet.

Coconut oil.—The digestibility of coconut oil has not been extensively studied. Bourot and Jean (Compt. Rend. Acad. Sci. Paris, 123, 1896, No. 16, pp. 587-590), carried on a series of experiments with subjects who received foods prepared first with natural butter and then with coconut butter. They concluded that the vegetable product was somewhat more thoroughly assimilated than was butter, the former being 98 per cent and the latter 96 per cent digested.

In a series of tests of 28 days' duration, divided into a foreperiod of 7 days, a 14-day experimental period, and an afterperiod of 7 days, Von Gerlach (Ztschr. Phys. u. Diatet. Ther., 12-1908/9-No. 2, pp. 102-110) found that purified coconut oil, called "sanella," and true butter were both 97 per cent digested.

Lahrig (Ztschr. Untersuch. Nahr. u. Genussmtl., 2, 1899, No. 8, pp. 622-632) reports a similar study in which different amounts of so-called coconut butter designed for use as a butter substitute were eaten in a simple mixed diet. In one of the tests 136 grams of the fat were consumed daily for three days and in the second 90 grams per day for the same length of time. In the first test the fat was 97 per cent available and in the second 96 per cent was assimilated.

Seven experiments are reported in this paper to compare the digestibility of coconut oil with that of other edible fats, and four experienced subjects assisted in the work. Under

conditions customary in these tests, the data have been collected and are summarized in the following tables:

Data of digestion experiments with coconut oil in a simple mixed diet.

Experiment No. 224, subject O. E. S.:	Weight	Water	Protein	Fat	Carbohydrates	Ash
	Grams	Grams	Grams	Grams	Grams	Grams
Blancmange containing coconut oil	2,678.0	1,226.5	50.2	393.4	989.1	18.8
Wheat biscuit	263.0	23.7	27.9	3.9	203.3	4.2
Fruit	1,449.0	1,259.2	11.6	2.9	168.1	7.2
Sugar	196.0	.....	.....	.....	196.0	.....
Total food consumed	4,586.0	2,509.4	89.7	400.2	1,556.5	30.2
Feces	96.0	.....	26.9	14.9	46.6	7.6
Amount utilized	.....	.....	62.8	385.3	1,509.9	22.6
Per cent utilized	.....	.....	70.0	96.3	97.0	74.8

[fol. 379] On an average 64.6 grams of coconut oil was eaten daily and was well digested by the four subjects in these experiments, the average coefficient of digestibility being 93.5 per cent. The coefficient of availability is increased to 97.9 per cent by correcting for the metabolic products occurring in conjunction with the unutilized fat in the ether extract of the feces. In experiment No. 224, with subject O. E. S., a relatively large amount of the fat, 131 grams per day was even more completely assimilated and, as evidenced by the report, produced no abnormal alimentary symptoms. In fact, no one of the subjects reported any laxative condition.

The protein and carbohydrates were 64.5 per cent and 96.7 per cent available to the body, values which compare favorably with the thoroughness of digestion of these constituents usually found in similar tests. It may be reasonably concluded on the basis of these results that coconut oil is suited to serve satisfactorily for food purposes.

DEPARTMENT OF AGRICULTURE,
BUREAU OF CHEMISTRY,
Washington, D. C., July 25, 1919.

The NUCOA BUTTER CO.,
Woolworth Building, New York City.
(Attention Mr. G. E. Davis.)

GENTLEMEN: Referring to your letter of July 21, 1919, asking the actual nutritive value of coconut oil, you are

advised that in discussing the actual nutritive value it is necessary to bear in mind that these words are used in several distinct significations which will be discussed separately and also that there is no exact measurement of real nutritive value; that is to say, in discussing nutritive value it is necessary to make certain hypotheses in regard to nutrition and in the light of these hypotheses attempt to evaluate the nutritive value.

The nutritive value of any food is sometimes used in the sense of the calorific value which may be likened in general terms to a fuel value on the analogy that the human organism is a machine which consumes energy. From this point of view the nutritive value of coconut oil is approximately that of the other oils, all of which have very high calorific value, as will be found stated by the text books on physiology. Such works ordinarily state that the high fuel value of fats and oils is probably the reason why such foods are particularly relished and seem necessary in cold climates. From this point of view coconut oil as made up into nut margarine has a higher nutritive value in nut margarine, weight for weight, than butter, since nut margarine as sold upon the market is higher in content of fat oil than is butter in content of butter fat.

Another use to which the term "nutritive value" is sometimes applied arises from a consideration of the organic radicals supplied by the food in question and of their essential or nonessential and ready or difficult use by the organism. From this point of view the oil of the coconut is of higher value for nourishment than are the other vegetable and animal oils, with the exception of butter fat. This is true from a consideration of the chemical constitution of the oil since it is nearest like the chemical constitution of butter fat, although it is distinctly different from butter fat.

It must, however, be considered in connection with this statement that the conclusion that this oil is more valuable in nutrition is based upon the hypothesis that the chemical constitution of butter fat, which in turn is very close in chemical composition to the fat of human milk, is a fat best adapted for nourishment. This hypothesis has not been wholly proved. While it seems true that the nourishment of the infant is best served by the use of a fat as close as possible in composition to that of the fat of human milk, it does not necessarily follow that this is true of the

adult. It certainly is not true that the composition of butter fat, either that of the human milk or that of the cow, is closely related to the fat of the human being. From this point of view if it is hypothesized that the fat to be used and considered as most nourishing is the one which is most like in chemical nature to the fat of the organism using the fat in question for food, lard would be the better fat than butter fat, since lard is more nearly like human fat in chemical constitution.

Again, the term "actual nutritive value" is sometimes made to include the consideration of the newly discovered class of compounds known as vitamines. From this point of view coconut oil has not been exactly investigated, but the present information would indicate that coconut oil is in the list of those oils poor in vitamines. However, it seems to be true that it is not good economy to purchase the necessary vitamines in the form of butter, since the same vitamines which are present in the butter are present in the butter fat of the original milk, and the original milk contains other vitamines as well as very valuable food protein which is not contained in butter to a notable extent. It therefore seems better public economy to buy the vitamines necessary for nourishment in the form of fresh milk and to buy the fats necessary for nourishment in such forms as the fat of meat, the fat contained in various oil seeds, like, for example, the soy bean, and the fat in the form of nut margarine or oleomargarine. In this connection the recent book by Prof. Graham Lusk of Cornell University medical department, Food in War Time, is apropos.

Respectfully, I. K. Phelps, Chemist in Charge Food Control Laboratory.

STATEMENT OF MR. HARRY B. PEEBLES, OF N. W. AYER & SON, 300 CHESTNUT STREET, PHILADELPHIA, PA.

Mr. Peebles: Mr. Chairman, it seems that the arguments of the proponents of this bill are based very largely upon the claim of the menace to public health and the charge that these compounds are very apt to be fed to children. I would like to call attention to the fact that they have never introduced any evidence to show that these compounds have actually been fed to children.

Mr. Clarke: Before you proceed, just what is your business?

Mr. Peebles: I represent N. W. Ayer & Sons, of Philadelphia, advertising counsel for the Hebe Co.

It would seem perfectly natural that they would make an investigation to find out if Hebe is being fed to children. They did make such an investigation; they asked the Visiting Nurse Societies of the various large cities to find out if these compounds were being fed to children——

Mr. McLaughlin of Michigan: Who asked them that?

Mr. Peebles: The proponents of this bill. They did not introduce the results of those investigations as evidence at this hearing, for the simple reason that the results did not bear out their claims.

Mr. McLaughlin of Michigan: Well, who are the proponents of this bill? It was introduced by Mr. Voigt.

Mr. Peebles: I am referring particularly to the Dairymen's League and, I believe it is, the Tri-State Milk Producers' Association, who have their headquarters in Philadelphia, and also those who engineered the legislation out in Wisconsin.

In Philadelphia they went to the Visiting Nurse Societies and asked them to make an investigation. Here is the letter that the Visiting Nurse Society of Philadelphia gave to me:

About three weeks ago the staff of the Visiting Nurse Society were asked to find out in the homes they visited within the next two or three days whether or not "Hebe" was being used; if so, for what purpose, and especially if in any case it was being used for infant feeding.

In one district—Kensington—it was found that "Hebe" was being used for the table—that is, for cooking and for coffee—but in no case was it being used for infant feeding. In all, about 1,000 homes were visited.

Here we have a letter from the Visiting Nurse Association of Milwaukee, Wis., dated May 23, 1921:

In the past two weeks our staff of 15 nurses have made a survey of the various kinds of milk compounds used in the homes. During this time an average of 1,200 calls were made. The inquiries were, what brand was used, and

how it was being used. In no case were the milk compounds used as an infant food.

[fol. 389] Here is a letter from Agnes J. Martin, Superintendent of Nurses, Health Department of Milwaukee, dated May 25, 1921:

In a week's survey with approximately 1,500 calls, it was found that no milk compound was being used for infant feeding.

Here is a letter from the health commissioner of the city of Boston, dated July 1, 1921:

BOSTON HEALTH DEPARTMENT,
CITY HALL ANNEX,
July 1, 1921.

Messrs. N. W. AYER & SON,
30 State Street, Boston, Mass.

GENTLEMEN: Inquiries made by the 19 nurses in the service of the Boston Health Department, engaged in field work with respect to communicable diseases and infant welfare, during the past four days, for the special purpose of determining whether any of the compounds now on the market made up and advertised as being a mixture of milk and vegetable oils were or were not being used for the feeding of infants, have failed to disclose a single instance in which any such compound was being so used. In no case whatsoever was such use found, either the intentional and knowing use on the part of the mother or other person having care of the baby or invalid or the ignorant use due to any misunderstanding on the part of any such person.

It is understood that this letter is for your information, and that it is not to be used for advertising purposes.

Yours very truly, Wm. C. Woodward, *Health Commissioner.*

Here is a letter from the Child Welfare Society of Washington, D. C., signed by the nurse in charge of Center No. 2:

CHILD WELFARE SOCIETY,
Washington, D. C., July 6, 1921.

N. W. AYER & SON,
(Attention to Mr. Peebles.)

GENTLEMEN: This is to certify to the best of my belief that Hebe is not used for infant feeding among the 200 babies under observation at this center.

Very truly, N. Reed, *Nurse.*

Here is a letter from the Instructive Visiting Nurse Society, of Washington, D. C.:

INSTRUCTIVE VISITING NURSE SOCIETY,
Washington, D. C. July 6, 1921.

N. W. AYER & SON,
Philadelphia, Pa.
(Attention of Mr. Harry B. Peebles.)

DEAR SIRS: Several days ago Mr. H. B. Peebles visited our office and requested a statement as to whether or not our nurses had found "Hebe" being used in the homes of their patients as a milk substitute in infant feeding. After several days observation our nurses have reported no such instances.

It is understood that this statement is to be used in no way for advertising purposes.

Very truly, yours, Gertrude H. Bowling, *Director.*

I would like to have those records spread on the record.

Mr. Davis: Mr. Chairman, I would like to introduce Mr. Brokmeyer, Washington counsel for the Association of National Advertisers.

STATEMENT OF MR. EUGENE C. BROKMEYER, COUNSEL FOR ASSOCIATION OF NATIONAL ADVERTISERS, MUNSEY BUILDING, WASHINGTON, D. C.

Mr. Brokmeyer: Mr. Chairman and gentlemen of the committee, the Association of National Advertisers, whom I have the honor to represent in Washington as counsel, includes among its membership the manufacturers of Hebe. I shall not tax your patience or your time further than to call attention to the decision of the Supreme Court of the United States in the case of McDermott *v.* the State of Wisconsin, with which Mr. Voigt is perhaps more familiar than I am. This opinion seems to establish the fact that so far as the authority of the Department of Agriculture is concerned, it is ample to reach just such cases as this, and that, therefore, further legislation on the part of Congress is unnecessary.

The gist of the opinion, as I gather it, is that the Federal authorities may follow and control a package to the shelves of the retailer in so far as regulating its branding is con-

cerned. I believe that is the gist of the decision. To such an extent did the Supreme Court go that it set aside the statute of Wisconsin which sought to interfere with the right of the Federal authorities to do that.

Now, if this decision means anything it means, in my humble opinion, that this proposed legislation is unnecessary, for the reason that under the existing law and the regulations which the department has power to make to enforce it, if this or any other preparation is misbranded in violation of the Federal act the Department of Agriculture can remedy the situation.

Mr. Voigt: Well, there is no claim made that the article is misbranded under the pure food and drugs act, because it is not labeled "milk." There is a clause in the pure food and drugs act under which this product may travel under the present label. The question before the committee is whether additional legislation should be recommended in order to prevent this substitute from traveling under this or any other label or whether it should be entirely prohibited.

Mr. Brokmeyer: Answering that question, Mr. Chairman, it seems to me that no additional legislation is necessary in view of the decision in the McDermott case.

Mr. Voigt: You do not mean that the Department of Agriculture has the right to suppress traffic in that substitute under the present law?

Mr. Brokmeyer: It has not, sir, unless the fact can be established that this violates the Federal act against either misbranding or the adulteration of food in interstate commerce. If that fact can be established the Department of Agriculture can suppress it. If the fact can not be established, it can not suppress it.

That is all I have to say on that subject.

Mr. Davis: Mr. Chairman, I would like to introduce Mr. John Sullivan, secretary and present treasurer of the Association of National Advertisers, who will speak on the label provisions of the law and their applicability to this product.

The Chairman: Mr. Sullivan, we shall be pleased to hear you.

[fol. 381] Statement of Mr. John Sullivan, New York City, Secretary-Treasurer, Association of National Advertisers.

Mr. Sullivan: Mr. Chairman, owing to the short time I

will omit a good deal of what I was going to say and deal strictly with the matter of the label.

It has been said, I understand, that grocers have deceived the purchasing public by having sold this compound as milk. There is not any doubt whatever, from what we have found in the matter of the labels, that the grocers know exactly what they are buying and what they are selling in the case of Hebe. The fact of the matter is that throughout our association we find that retailers are to a very considerable extent accustomed to buy on the label. They are always having the labels and the contents of the packages called to their attention by salesmen, and constantly called to their attention by letters from the manufacturer.

It is also a fact that the large amount of money that is spent in advertising by these manufacturers is constantly instructing the public as to the necessity of their paying attention to the labels, that being a form of advertising by the manufacturer. For instance, the California Fruit Growers' Exchange, of California, made an investigation some years ago in which they found that all the jobbers in the territories that they investigated bought on the label, and most of the retailers did exactly the same thing. My point is that it is well known that labels have a tendency to fix themselves in the minds of the jobber and the retailer and also the mind of the public.

As a matter of fact, this question of labels is so vital with our manufacturers that they have to handle the matter very, very carefully when they consider the question of changing their labels. Sometimes it is necessary to do that, owing to the fact that they have had a label that does not advertise their product as well as it should be advertised.

The reason they have to handle it very carefully with the trade is this: The dealers know that the old labels have a very large amount of good will attached to them, and if a change were made abruptly it would necessitate a great deal of explanation on the part of the dealer in order to prevent him from being suspected of substituting.

Take the case of John Lucas & Co., of Philadelphia, the paint and varnish people. Seven years ago they found it necessary to change their labels, and they had to do it very gradually and very, very carefully. They had first of all to put their new label on the back and gradually get the dealer and the public to seeing the new label.

Take the case of a very well known label, that of the Smith Bros. cough drops. They have said that in spite of the fact that their label is ugly, is old fashioned, and could probably be very greatly improved, they dare not change the label because they are afraid their sales would suffer.

Another notable case we have had is that of the John B. Stetson Co. The John B. Stetson Co., of Philadelphia, have been using a certain kind of hat box for many years. They have thought several times in the last few years of changing that hat box. They have been advised by experts on this question—in fact the matter was discussed in one of our general meetings at one time and they were unanimously advised not to change the form or the color of the hat box.

Just to show you again how important labels are, take the women's garment that was first merchandised in 1905—Heatherbloom petticoats. When that firm started to merchandise that as a trade-marked product the garment makers refused to accept it. Five years afterwards, so convinced were they of the value of the label and of the fact that it had a great deal of influence with the purchasing public, they found it very difficult at times to supply the quantity of labels that were asked for by the garment manufacturers.

I want to ask this question: Why is there the present enormous business in package goods if the label is not valued and examined and read by the public? During the last 10 or 15 or 20 years the package goods have been supplanting the bulk goods, so that now—and this is a very interesting thing—a broker in food products will actually refer to the package goods as staple goods, a term that was formerly used only with bulk goods. It is a most common thing in stores—and we find it with all our manufacturers who merchandise their goods through dealers—for the public, particularly women, to refuse to buy goods that they do not recognize. I might instance the case of the Housewives League that several years ago was very powerful in the vicinity of New York. At first this league was opposed to the package—and I mention the package because it has a distinctive bearing upon this label matter. Yet in 1915, after they had investigated the whole subject and found the value of the label and the estimate that was placed upon it by the public, and the fact that the goods were bought upon

the basis of the label, they changed the views of the league and went out and supported the case for packaged goods.

Here is another question I would like to ask, gentlemen: If the label does not and can not protect, why use it at all? Our manufacturers would be very glad, I am sure, to get rid of the expense entirely. Why has there been so much Federal legislation on the subject of labels if the Federal authorities are not aware that labels are read and are a means of identifying goods? This legislation must necessarily be based upon the knowledge that the public reads labels and can protect itself thereby.

There is one other point I want to bring out, gentlemen. The manufacturers that we have among the 320 who are in the Association of National Advertisers are the worst enemies of the deceiving retailer. We have had to do a great deal of fighting of substitution. We have had to fight the grocer's practice of misrepresenting goods. But the grocer in that respect has been in no worse case than American business in general was years ago. There were practices in American business 25 or 30 or 35 years ago that would not begin to pass to-day. This matter of the grocer has been a matter of very careful and constant education, and the manufacturers themselves have been playing a very large part in the education of those retailers.

Just to show you how very quick the public is to notice points in advertising, let me instance the case of the Palm Olive Co. The Palm Olive Co. got out a very large poster; you may have noticed it,—there is a picture of a child, and the mother is bending forward over the child. The artist made a mistake in the picture, and the Palm Olive Co. have [fol. 382] in the last few months received thousands and thousands of letters calling attention to the fact that the mother has no wedding ring on her finger. I can give you, if you wish, the exact number, but they have received thousands and thousands of these letters calling attention to that particular fact.

The matter of the foreign-language publications and their discrimination has been dealt with. I may say, however, that the people who have a great deal to do with foreign-language publications always assure us that the people who read those publications are very, very discriminating indeed. I think that confirms from the advertising point of view what was said on that subject this morning.

But there is another point here, gentlemen, and that is that you do not encourage discrimination by means of protection and paternalism. It is far better to throw all these people into the water, so to speak, and let them swim for themselves. Protection and paternalism are not going to make citizens of these people.

Then, again, the courts generally so recognize the extent to which labels are read that under the trade-mark laws they have frequently forbidden the use of a package that was a colorable imitation of a well-known package. If I had time I would cite many instances but the point is that the courts themselves have constantly recognized that the public does discriminate between packages that the public should not be deceived by one package being a colorable imitation of another.

The Government has also regarded the matter as very important from time to time, as, for instance, in 1913. The Department of Agriculture has given help to manufacturers in constructing and preparing their labels so that they might be absolutely legal.

In conclusion, whether all the States have labeling laws or not I do not know, but I have information showing that a considerable number of the States have labeling laws, including, of course, the State of Wisconsin.

If the retailers, including the grocers, are guilty of this sort of deceit they can very readily be dealt with under the common law, and they should be dealt with under the common law; and industries that are being conducted honestly—because in spite of what some people in the community think, most American people are honest and the majority of American business is honest—should not be penalized because men who can easily be dealt with under the common law do deliberately deceive the public.

I thank you very much.

The Chairman: Mr. Sullivan, we are very much obliged to you.

Mr. Davis: I understand that Mr. Wilson, of the Indiana Condensed Milk Co., also a manufacturer of a milk compound, is here but has stepped out of the room. I am sure he would like an opportunity to be heard. If you will allow us that opportunity at the next hearing when the representatives of the governmental bureaus will be here, I think the committee will be interested in hearing what he has to say.

The Chairman: My understanding is that the hearing is to be closed now.

Mr. McKee: Mr. Chairman, I would like to say one word. Mr. Wilson, of the Indiana Condensed Milk Co., and Mr. Cowan, of the Grand Ledge Milk Co., of Detroit, desire to be heard. They have large sums of money invested in this proposition. They have spent large sums of money in advertising their products. Mr. Taylor Wilson, the president of this company, recently died, and they are somewhat handicapped. This bill, if it is passed, will absolutely destroy this industry, and it is of very great importance to the men who have invested their money and spent their energy in building it up.

Mr. Clarke: Why are they not here?

Mr. McKee: Mr. Wilson is here. Mr. Cowan informs me that it is absolutely impossible for him to be here to-day. He did not know the hearing was to be closed to-day. We were under the impression that the proponents of the bill were going to be heard again and, in view of the fact that the request had been made of the Bureau of Chemistry and the Bureau of Markets for some representatives to be here before this committee, that there would be another hearing and that those men who were vitally interested could be here.

Mr. Clarke: Can they not submit their briefs and have them inserted in the record?

The Chairman: Will that be agreeable?

Mr. McKee: I could not answer for that.

Mr. Voigt: Mr. Chairman, I think everybody is entitled to an opportunity to be heard. Personally, I do not feel like cutting those gentlemen off. It probably would not take very long to hear them, and when the representatives of the department come here I have no doubt that sufficient time could be found to hear them.

The Chairman: But this committee has so many important matters to be heard, and we ought to have some program to work by. When the committee once determines to close the hearings that determination ought to be final, so that we can expedite other important matters.

Mr. Voigt: I would suggest that we set aside a half day some time when it is convenient and divide the time among the representatives of the department and these men who are interested in the industry and possibly one or two others who will want to be heard in rebuttal.

The Chairman: Less than an hour ago it was decided to close the hearings. Now it is suggested that we reopen them for another half day. What then? Would you continue them further?

Mr. Voigt: But the committee has not determined to close the hearings.

The Chairman: Yes, less than an hour ago.

Mr. McLaughlin of Michigan: Do you really think these gentlemen can add anything to what has already been said?

Mr. Voigt: I doubt that they can, but I would like to give them a short time to be heard.

The Chaiman: I am perfectly willing to meet here at 8 o'clock to-night and stay until 12 to hear them, but I think these hearings ought to be closed.

Mr. McLaughlin of Michigan: I think if they submit their briefs that would be sufficient.

Mr. Davis: We will not take very much time. When I said 20 minutes I referred to the time that I wanted for myself, and then I yielded to these other gentlemen because they had come from a long distance. I can come here at any time; I come from New York.

[fol. 383] The Chairman: understood you to say that two or three gentlemen desired to be heard and that we could close it up inside of 20 minutes. As I say, if you want to come here at 8 o'clock to-night, I will come and stay until 12 o'clock.

Mr. Davis: These gentlemen could not get here. Do you know, Mr. McKee, what time would be convenient?

Mr. McKee: I could not say now.

The Chairman: Do you think they would want to make a trip to Washington to make their statements?

Mr. Davis: I think they would.

The Chairman: Have they indicated a desire to come?

Mr. Davis: Yes; they have, to Mr. McKee.

Mr. McLaughlin of Michigan: I think we have had a very good statement of this matter from the manufacturers' standpoint from Mr. McKee. There is one thing I would like, and I think we ought to have it. We ought to have a copy of the label used by each company, and every label used by every company.

Mr. McKee: I will see that you get those, Mr. Chairman.

Mr. Clarke: I can not understand that, Mr. McKee. If they are so vitally interested, why are they not here? We

are extremely busy. I have a thousand things piling up, and I presume my case is the case of everyone here.

Mr. Voigt: I will make this motion, that the committee grant a further hearing of one-half day on this bill, and that the time shall be fixed by the chairman.

The Chairman: What is the use of closing the hearings when you immediately want to reopen them? The country is demanding action on this legislation, and it ought to be disposed of. Do you want to sidetrack all these other important matters and go on with this hearing?

Mr. Voigt: I do not want to sidetrack anything, but I would like to hear these witnesses. You have to hear the department anyway.

The Chairman: It is just a question whether the committee want to sidetrack other important matters and go on with this.

Statement of Mr. B. A. Kozicke, New York City, of Breed, Abbott & Morgan, Counsel for the National Wholesale Grocers' Association of The United States.

Mr. Kozicke: Mr. Chairman, may I make some remarks in connection with this bill? I represent the National Wholesale Grocers' Association, and I would like to express the attitude of the wholesale grocers on this subject.

First of all, we are opposing this bill from a practical standpoint. We believe the most practical and efficient food law is the general food law, which endows the enforcement authorities with power to promulgate rules and regulations to carry out the law. We feel that the present food and drugs act is efficient in that particular and has been efficient ever since 1906. We feel that it would be a dangerous proposition to legislate on each particular food product, and if you start legislating on this product the danger arises that we may very well have in a short time specific statutes covering specific products.

From the standpoint of the wholesale grocer, that would make it very difficult for him to do business, because he would have to inform himself in connection with each product, and then he would run up against the snag of making himself acquainted with the individual statutes of the different States. For that reason we would like to register our opposition to this kind of legislation.

We feel that the food and drugs act, as it is at present written in the statutes, is very efficient and that it can be used to prohibit the sale of any product that is either fraud-

ulent or adulterated. We also feel that if there is any question of danger to health the food and drugs act will cover that, and the authorities have ample power to reach it.

That is all, gentlemen.

The Chairman: We are very much obliged to you, sir.

Can you state any definite time, Mr. McKee, when these gentlemen can be here?

Mr. McKee: Next Wednesday or Thursday, I think.

The Chairman: The country is getting very impatient about legislation, and I do not want this committee to be placed in the attitude of delaying action on any measure. Legislation ought to be expedited and disposed of. As I stated before, we have a number of important bills here, I think quite as important as this bill, and it does not seem businesslike to continue the hearings from week to week, especially when we are dealing with business men who are accustomed to expediting matters rather than delaying them. As I have said, if these gentlemen want to be here, I will be here to-morrow or any time you may suggest, and I am sure the other members of the committee will be here also.

Mr. Voigt: There are some people who represent the large milk associations of the country who are located here in Washington but who are at the present time attending a convention in Ohio. These men will not be able to get back here for about a week, and I told them before they left that I thought the committee would hear them when they returned. So I believe the best thing that can be done is to leave the date open.

(After further informal discussion.)

The Chairman: Let it be decided then when we have our next meeting and have a quorum present. With that understanding, without objection the committee will stand adjourned.

(Thereupon, at 12:45 o'clock p. m. the committee adjourned to meet at the call of the chairman.)

Committee on Agriculture, House of Representatives,
Tuesday, July 19, 1921.

The committee met at 10:40 o'clock a. m., Hon. Gilbert N. Haugen (chairman) presiding.

Present: Representatives Haugen (chairman), McLaughlin of Michigan, Voigt, McLaughlin of Nebraska, Tincher, Sinclair, Hays, Clague, Clarke, Jacoway, Rainey, Aswell, Kincheloe, Jones, and Ten Eyck.

The Chairman: Dr. Larson, we will hear you now.

[fol. 384] Statement of Dr. C. W. Larson, Chief of Dairy Division, Bureau of Animal Industry, Department of Agriculture.

Dr. Larson: Mr. Chairman. I was notified just the other day that this committee desired that I appear before it, and I am here for whatever information or service I may be to you. I have not prepared any statement or any argument for any bill; I do not believe that is my function in the department.

Mr. Kincheloe: What are your duties, Dr. Larson?

Dr. Larson: My duties are to administer investigational work in dairying for the United States Department of Agriculture.

Mr. Kincheloe: What experience have you had in regard to learning the contents of this so-called filled milk?

Dr. Larson: Filled milk is a new product that has come on to the market recently, made from skimmed milk and vegetable fat. In other words, the manufacturers of evaporated milk have removed the butter fat and substituted for the butter fat vegetable oil, and this butter fat that they have taken away from the product is sold in the form of either cream or butter.

Mr. Kincheloe: As far as I am concerned, what I would like to hear from you, and also from the chemists, is whether in your judgment preparations of that kind, such as Hebe and those other preparations that are being sold throughout the country, are deleterious to human health.

Dr. Larson: I am not a human physiologist; I have studied animal physiology and nutrition, but I am certainly not prepared to answer that question.

Mr. Kincheloe: You do not feel qualified to answer that question?

Dr. Larson: No, sir. What I would have to say on that would simply be what I have read and heard nutrition experts say. I am not prepared to answer that question at all.

Mr. Clarke: I think we had a very complete statement on both sides of that question from Prof. McCollum and others.

Mr. Kincheloe: I was more anxious to hear from the chief chemist than from this gentleman.

Mr. Clague: Have you studied the nutritive qualities of this filled milk? Do you know anything about that at all?

Dr. Larson: No, sir; that is not in my line at all.

Mr. Aswell: What do you know about filled milk?

Dr. Larson: I simply know in general the process of manufacture, and I believe I know the economic effect and aspect of this question.

Mr. Clarke: That is a very important matter to us. What peculiarly interests me, coming from a dairy section of the country, is this. Has your department at any time investigated to see what the effect would be, whether it would increase the use of the products of the cow or not?

Dr. Larson: It is my opinion that it does not increase the use of the products of the cow.

Mr. Clarke: Have you made any investigation, or your department, of that problem?

Dr. Larson: I can not see any possible way of making such an investigation at present, but you can reason out the situation.

Mr. Aswell: Does it increase the market for skimmed milk?

Dr. Larson: No, sir.

Mr. Aswell: It does not?

Dr. Larson: No.

Mr. Aswell: Well, you have got to prove that.

Dr. Larson: I was about to state my reasons. The evaporated milk factories of this country are making this product. No one else is making this product. It is not a by-product of the creamery; it is not a by-product of any other factory which uses skimmed milk; it is a product of the factories that formerly made and at the present time make the pure dairy product.

Mr. Clarke: Here is the thought I had in my own mind on that—

Dr. Larson: Pardon me. The factories that now are equipped to use whole milk and make it into a whole-milk product, and could make it into a whole-milk product, are taking away some of that dairy product and putting in a vegetable oil.

Mr. Clarke: But are they not increasing the use of this milk, for mixture or compound, for cooking and other purposes?

Dr. Larson: They are increasing the use of vegetable oil.

Mr. Clarke: Not alone the use of vegetable oil, but the compound, whatever it is?

Dr. Larson: I do not see your reasoning in that. This product sells on the market, in direct competition, for the same purpose that the dairy product sells for.

Mr. Aswell: But not at the same price?

Dr. Larson: And at practically the same price.

Mr. Aswell: Oh, no.

Dr. Larson: Pardon me, Congressman. One hundred and fifty-six stores in Washington to-day are selling the pure dairy product at the same price that they are selling the vegetable-oil product for.

Mr. Clarke: But do they not use the one product, condensed milk, for one purpose, and this Hebe for other purposes?

Dr. Larson: That is true, but they also use evaporated milk for the same purposes, or they use this product for the same purposes, for which they use evaporated milk.

Mr. Voigt: Is it not a fact that the stores here in Washington have been selling this compound as milk and advertising it as such?

Dr. Larson: I have made no such investigations. All I do know is that the stores that I visit in buying for the home put this product on the shelf with the other product, and it is sold to the same customers and for the same purposes as the other product.

Mr. Voigt: How do you know that 156 stores are selling this product?

Dr. Larson: I should explain, because I failed to make it clear, that I have not investigated this matter. I have not thought it was my business to go into it. But I happen to know personally the manager of 156 stores in this city, and he says that he sells good grades of the pure animal product for the same price—10 cents a can for the large cans—as the filled milk.

Mr. Voigt: Do you mean to say then that an organization which has 156 branch stores in Washington is selling the product?

Dr. Larson: Yes, sir.

[fol. 385] Mr. Voigt: But that is not the total number of stores selling the product?

Dr. Larson: I said I knew that 156 stores were selling it; I do not know how many more.

Mr. Voigt: Is it not a fact that this compound is in direct competition with the pure product?

Dr. Larson: Absolutely; that is my information.

Mr. Voigt: And sold by the stores as such?

Dr. Larson: I can not say what they sell it as, of course; I have not investigated that. I do know that it sells for the same purpose, and were it not for the fact that this filled product was on the market those same customers would buy the other product. So it is in direct competition, for the same purpose.

Mr. Voigt: Then this product is in direct competition with the pure-milk product?

Dr. Larson: Oh, yes, sir; that is my information. And it is not a new trade or a new market for a dairy product.

Mr. Voigt: And your opinion is that to the extent that this compound is used it is crowding out the pure-milk product?

Dr. Larson: Yes, sir.

The Chairman: Pardon me for a moment. I desire to call to the attention of the committee the Secretary's letter in respect to the invitation extended by the committee. It is short, and I will read it:

The Secretary of Agriculture,
Washington, July 11, 1921.

DEAR MR. HAUGEN:

In answer to yours of recent date, in which you invite Dr. Alsberg and Dr. Larson, chief of the Dairy Division, to appear before your committee, Dr. Larson can appear before you at almost any time. I shall ask him to communicate with your office by telephone and arrange for a time for a hearing. With regard to Dr. Alsberg, as you know, he resigned some little time ago and is leaving here to-day or to-morrow.

Very truly, yours, Henry C. Wallace.

Hon. G. N. Haugen, *Chairman Committee on Agriculture, House of Representatives.*

Mr. Aswell: Who is in charge of the Department of Chemistry now?

The Chairman: I do not know. Dr. Larson, do you know?

Dr. Larson: No; I do not know who will be in charge until the position is filled.

The Chairman: My understanding is that Dr. Alsberg's successor has not yet been appointed. What is the pleasure of the committee? Will the committee invite some other representative of the bureau?

Mr. Aswell: I personally shall insist upon hearing some chemist from the Department of Agriculture before we take any action on this bill.

The Chairman: Without objection then, the Clerk will be instructed to communicate with the department and request that some representative of the Bureau of Chemistry appear.

Dr. Larson: Mr. Chairman, if I might make the suggestion, I think it should be made clear just what you want. Do you want a chemist, or do you want a nutrition expert, or do you want someone who has studied the food values of these products, and so on? Do you want the administrative head of the bureau, or do you want a technical expert?

Mr. Aswell: I want someone that knows the food values of these things.

Dr. Larson: I think probably that should be specified.

Mr. Kincheloe: Yes; I think it ought to be somebody who knows the food value of these products.

The Chairman: Whom do you suggest?

Mr. Aswell: I do not know the names. I suppose there is some man next to Dr. Alsberg who knows something about the subject.

The Chairman: Shall we leave it to the discretion of the Secretary?

Mr. Aswell: Yes, sir.

The Chairman: Without objection, it will be so ordered. I have to attend another meeting at 11 o'clock, and will leave the matter with Mr. McLaughlin, of Michigan.

(The chairman then withdrew, and the chair was taken by Representative McLaughlin, of Michigan.)

Mr. Voigt: Do you consider, Doctor, that the manufacture and sale of this compound is injurious to the dairy interests of this country?

Dr. Larson: I believe it is, slightly now, and if the products increases it will be decidedly injurious.

Mr. Voigt: Is it your opinion that the manufacture of this product tends to increase or decrease the number of dairy cows kept in the United States?

Dr. Larson: If my statement on that is accepted, that this products sells to the same trade, then if you enlarge this product by putting in a foreign material it must decrease the use of the products of the cow.

Mr. Voigt: And consequently decrease the dairy interests as a whole?

Dr. Larson: Yes, sir.

Mr. Voigt: Last year about 7,000,000 pounds of coconut oil were used in the manufacture of this filled-milk compound?

Dr. Larson: Yes, sir—nearly 8,000,000, as I understand it.

Mr. Voigt: Is it your judgment that those 8,000,000 pounds of coconut oil displaced a like quantity of butter fat?

Dr. Larson: It certainly did, in the condensed milk or the evaporated milk, as the case may be.

Mr. Voigt: What is there to this aspect of the question? It is claimed by the manufacturers of this compound that through it an additional or better market is found for the farmers' skimmed milk.

Dr. Larson: In actual practice that has not been the case. If this product sold to a different trade, to a trade that would not use the dairy product, then it would offer a new market for the product. But that is not the case; it is in actual, definite competition.

Mr. Clarke: Have you made any investigation, Doctor—we will say in the same market where these dairy products were sold—as to whether it had decreased the quantity of condensed and evaporated milk and increased the sale of the other products, Hebe and the others?

Dr. Larson: My judgment would be——

Mr. Clarke: No; I do not ask your judgment. That is not the question.

Dr. Larson: There is no investigation; I do not see how you could possibly have it.

[fol. 386] Mr. Clarke: I thought maybe you had done something of that kind.

Dr. Larson: Let me tell you why. The consumption of evaporated milk has increased enormously during the past few years, and so it would be impossible to say.

Mr. Clarke: Did the man that represented these 156 stores have anything to say about that?

Dr. Larson: He told me that it sold to the same people for the same purposes.

Mr. Aswell: Just there. If any citizen knows that any dealer is selling this product for the same purpose—that is, fraudulently selling it for the same purpose—is it not the duty of that citizen to report it to the authorities of the pure food and drugs administration? Why come in here and say that, and not report it to the right authority?

Dr. Larson: It is not necessary to report it so long as it complies with the pure food regulations.

Mr. Aswell: But if he is selling it for a different purpose than that for which it is manufactured——

Dr. Larson: Oh, I did not say that; I said it was sold to people who used it for the same purpose that they used the other product for. In other words, the majority of this condensed milk is used in cooking and in coffee in the city of Washington to-day.

Mr. Aswell: You made a very interesting statement awhile ago—and I think that is the crux of this bill—that the development of this industry would, through competition, as it were, injure the dairy business.

Dr. Larson: Yes, sir.

Mr. Aswell: That is the basis of this bill. Now, over here on Fourteenth Street I understand they are building a very fine hotel and that it will come directly in competition with the Franklin Square Hotel. Do you not think Congress ought to stop that interference with the Franklin Square Hotel?

Dr. Larson: Mr. Congressman, I think they should, if it was injurious to the Nation as a national policy.

Mr. Aswell: But you have not shown that.

Dr. Larson: I can not show that.

Mr. Hays: Are the people who buy this compound imposed upon? That is to say, do they buy a product that lacks the food value that they are seeking to obtain?

Dr. Larson: I said a bit ago that I would not discuss the food value of these products.

Mr. Hays: My idea as to the merit of this bill is that it should not be considered solely as to whether it would create competition with the dairy people, but whether or not the people who buy it got real value for their money and get the food value that they are seeking to obtain.

Mr. Aswell: That is all there is to it.

Mr. Clarke: I have read the testimony of this Dr. Hess, from Perth Amboy. He was an industrial doctor there for a large number of these enterprises——

Mr. Aswell: Dr. Larson has merely stated that he thinks, in the example I gave, that Congress should interfere and stop that hotel if it affects the Nation as a national policy. Now, here is a Member of Congress. He is a Federal official and he is working hard. Next fall he has opposition. Would it not be proper, under the principle of this bill, for Congress to step in and shut him out? It is the same principle.

Dr. Larson: I again repeat that if he was injurious to the Nation it would be well to put him out.

Mr. Aswell: All right. Let me ask you this further. Is it the business of the Congress to decide that, or of the men that elect him? Whose business is it, Congress's or the public's business, to decide whether it is injurious or not?

Dr. Larson: It is the duty of the people, I suppose, to determine whether it is or not.

Mr. Aswell: And so it is in this case.

Dr. Larson: But, Congressman, I assumed it was the duty of Congress to do the things for this Nation that are to the best interests of this Nation.

Mr. Aswell: Certainly; but do you mean to say that the duty of this Congress is to protect every big organization and shut out opposition and competition and let them grow, and tell the other fellows to get out of business?

Dr. Larson: No, sir.

Mr. Aswell: That is what we are doing here.

Dr. Larson: But this is what I do think. I do think that if you have an important, essential industry within the country it is the duty of Congress to protect this important and essential industry from ruination.

Mr. Aswell: Certainly; I agree. I do not agree with you in your first proposition. You admit you do not know anything about the food value of the product?

Dr. Larson: Yes, sir.

Mr. Aswell: It is just this, in my honest judgment, and I have been working on this for some 10 years, before this immediate matter arose. This does increase the market for the dairy business, and it must be conceded by any man that is not prejudiced and narrowed down to the dairy trust.

Dr. Larson: I do not know anything about the Dairy Trust, and I am not narrow and held down; I am here representing myself only, but I am here to tell you what I know about the dairy business from 35 years' study of it.

Mr. Kincheloe: The first question I asked you was whether, in your judgment, this filled milk was deleterious to human health, and you said you did not know.

Dr. Larson: That is correct.

Mr. Kincheloe: Now, then, in answer to the illustration used by Dr. Aswell about the hotels, you said you thought that other hotels ought to be put out of business if it was injurious as a national policy:

Dr. Larson: That is right.

Mr. Kincheloe: Now, what is your opinion about this filled milk as a national policy? Do you think it is wrong as a national policy, and if so, why?

Dr. Larson: I believe that in a Nation that has one outstanding industry, like agriculture in this country, it is to the interest of all the people of that Nation to develop and further that industry. I further believe that the dairy industry is vitally connected with our whole agriculture. [fol. 387] What I mean by that is that dairying is important from the standpoint of the production of wheat and corn and all our other crops. Therefore, for a foreign and imitation product that would be produced much cheaper——

Mr. Aswell: Do you call vegetable oil an imitation product?

Dr. Larson: I call this compound an imitation product.

Mr. Aswell: You know what is in it, do you not?

Dr. Larson: Yes, but it is an imitation of evaporated milk. I think it is desirable and important that that industry be maintained and not injured by some imitation.

Mr. Kincheloe: Wait a minute. You have generalized there, and everything you have said I agree with. You do not know whether it is deleterious to human health or not?

Dr. Larson: That is what I have said—except what I have read in the writings of scientists.

Mr. Kincheloe: I am talking about your own experience. You say you do not know?

Dr. Larson: I do not know.

Mr. Kincheloe: Now, in your opinion, is this filled milk a bad national policy? You can answer that, yes or no?

Dr. Larson: I say it is.

Mr. Kincheloe: Why is it? That is what I want to know. Now, do not generalize.

Dr. Larson: Because it is going to injure the dairy industry, and I have told you why it was important not to injure that industry.

Mr. Kincheloe: Then if I understand you, the reason you are for this bill——

Dr. Larson: I do not say I am for this bill.

Mr. Kincheloe: But there is not any doubt about what you are for.

Dr. Larson: Certainly; I think there is not.

Mr. Kincheloe: You do not deny it. Now, what I am talking about is this: You won't say that this is deleterious to human health. Now, do you say that the public that buys it has fraud practiced on them in any way?

Dr. Larson: When you say "In any way——"

Mr. Kincheloe: Well, in what way is it, then?

Dr. Larson: In the way that if I go down town to eat and buy a cup of coffee in a restaurant I am deceived, because I think I am getting coffee and cream when I am not.

Mr. Kincheloe: And do you believe that is deleterious to human health?

Dr. Larson: According to Dr. McCollum.

Mr. Kincheloe: Well, I am asking you.

Dr. Larson: Yes.

Mr. Kincheloe: According to another scientist just as great as he is, it is nutritious.

Dr. Larson: Well, if I need a certain kind of vitamines and I believe I am getting them in my ordinary routine of living and I am getting it in my coffee when I buy a cup of coffee, then I am taken care of. But when I go down to the restaurant and ask for a cup of coffee and do not get the vitamines, then I feel that I am injured.

Mr. Kincheloe: You stated at the outset that you did not know whether it was deleterious to human health or not.

Dr. Larson: No; but I do believe personally, the same as other people believe who have not investigated this, that I should have a certain amount of vitamines.

Mr. Kincheloe: I am not talking about vitamines; I am talking about whether it is deleterious to human health or not.

Dr. Larson: I do not know whether it is or not.

Mr. Kincheloe: Then, it is a legitimate business if the public wants it, and if, on the other hand, instead of being

deleterious it is nutritious, which this other great scientist says it is, it finally resolves itself back to this, that here are two legitimate businesses and one is getting a little the better of the other, and according to your theory Congress ought to come along and kick one of them out of business?

Dr. Larson: I think it is up to Congress to determine whether one of them is legitimate or not.

Mr. Hays: Dr. Larson, may I ask you a series of questions? As I understand, you are opposed to this business that puts the substitute on the market because it injures the dairy business?

Dr. Larson: That is the only point I have made.

Mr. Hays: You also stated that you knew nothing of the food value of the substitute, because you had made no investigation along that line?

Dr. Larson: That is right.

Mr. Hays: But you illustrated your proposition by saying that if you bought coffee in a restaurant and the milk that you poured in it was this substitute you would not be getting the vitamines that are necessary to your well being?

Dr. Larson: Yes.

Mr. Hays: How do you know that is true if you do not know about the food value?

Dr. Larson: Well, everyone will agree—I do not think anyone would say that there is much vitamine in this product.

Mr. Hays: Are you prepared to state that the vitamines that are necessary to human health are lacking? Or do you know?

Dr. Larson: I know it to this extent, that the fat soluble A is contained in butter fat, and there is practically none of that in skimmed milk.

Mr. Aswell: Oh, no; half of it is in skimmed milk. That has been proven thousands of times.

Dr. Larson: Anyone who knows milk products knows that is absurd, because——

Mr. Aswell: What is absurd?

Dr. Larson: That 50 per cent of the vitamines in the butter fat are retained in the skimmed milk.

Mr. Aswell: Let me give you one suggestion. You read the hearings of every scientist, Dr. McCollum included.

before this committee, and you will know something about it.

Dr. Larson: I have read it—some of it.

Mr. Aswell: You read the statements of Dr. McCollum and every other competent man we have had before this committee, and you will find the agreement is that there is about 50 per cent in skimmed milk.

Dr. Larson: I want to answer that, because I do not want to leave it in that form. I have said from the start that I did not care to discuss the food value of this product, and I have tried to avoid that. What led to this, this [fol. 388] Congressman on my right [Mr. Kincheloe] says there is no deception in any form. He raised this one point when I said I knew there was deception when I bought this coffee thinking that I was getting cream in it.

Mr. Kincheloe: You will not say, however, that notwithstanding you thought you were getting pure milk when you were getting this skimmed milk, you were injured by that?

Dr. Larson: I think I would be indirectly, because I did not get the vitamines that I thought I ought to have.

Mr. Sinclair: A fraud was practiced on you just the same?

Mr. Kincheloe: Why was it a fraud? Did you ask for cream?

Dr. Larson: No; but I expected it.

Mr. Kincheloe: Everybody knows that what little you ~~get in~~ a cup of coffee would not hurt a 3-day-old infant.

Dr. Larson: It would not hurt you.

Mr. Hays: You know, some years ago ordinary hog lard was generally used for cooking purposes to the exclusion of all substitutes. Since that time a number of vegetable substitutes have come into very common use in the kitchen in place of hog lard. Is not that true?

Dr. Larson: Yes; I think that is true.

Mr. Hays: Now, isn't it true that these vegetable substitutes that are being used are conducive to human health? It would seem to me, on the same principle you announced awhile ago, that you would be opposed to those vegetable substitutes for hog lard, simply because it would hurt the industry of hog raising.

Dr. Larson: I think that if it would hurt it sufficiently, or if there was the difference there is in these two products as to cost so that it would hurt it sufficiently to be injurious to the country, I do believe that.

Let me say this: We have got all the dairy products that we need, not only this filled milk, but we have got all the other products of the dairy that we need. By allowing the sale of this imitation product you are going to cut down the price of all dairy products, and you do not do that in the case of pork in the same way.

Mr. Hays: Is it not true, Doctor, that there is a demand for all of the fats that are taken out of the milk, that they may be used for other purposes?

Dr. Larson: Yes.

Mr. Hays: So that by adding these substitutes to this skimmed milk, assuming that they are harmless, does it not bring the milk products direct and indirect both, to a larger number of people than the dairy industry otherwise legitimately supply?

Dr. Larson: No; it does not bring any more dairy products to them.

Mr. Hays: It does not increase the number of dairy products, but by these additions to the dairy products it makes them available to a larger number of people. Is not that true?

Dr. Larson: It does not, unless it is sold enough cheaper and it goes into some other product, or is used in some other way that the dairy product would not be used.

Mr. Hays: But if you can take a legitimate dairy product and multiply it by two by the use of these substitutes, does not that bring this product, directly and indirectly, into the reach of a larger number of people than the original dairy product would be able to reach?

Dr. Larson: Well, you spread it out, of course; you would have to take that much more to get the same product.

Mr. Aswell: I want to get that matter of the price cleared up, and I want to ask a question of the attorney over here [Mr. Davis]. We have had testimony given here that this product is sold a few cents cheaper, and now Dr. Larson asserts that 150 or more stores right here in Washington are selling it at the same price.

Mr. Davis: I was surprised to hear that statement.

Mr. Aswell: What are you going to do about it, as the representative of that compound? Are you going to keep it selling at that same price?

Mr. McKee: We do not sell them at the same price, and I am surprised to hear that they are sold at retail at the

same price. There is a difference of 3 cents a can in the wholesale price.

Mr. Aswell: Do you not think that is a subject that your company ought to investigate a little?

Mr. McKee: I certainly do.

Mr. Aswell: Will you make a report back to this committee in the next two days as to the result of your investigation?

Mr. McKee: Yes; I will be very glad to do so. The wholesale price of evaporated whole milk is $5, and of the compound $3.60 a case. That is a difference of practically 3 cents a can, and that differential is uniformly maintained in our retail market.

Mr. Davis: May I make the statement, Mr. Aswell, that in connection with our Nucoa Nut Margarine we refused to sell to one of the larger chain stores in New York because they insisted upon charging 3 cents a pound more for Nucoa Margarine than any other seller of nut margarine was selling Nucoa for in New York.

Mr. McLaughlin of Michigan: But that is another product. Let us keep this along this line.

Mr. Davis: The principle is the same.

Mr. Kincheloe: Of course, your main reason for being for this bill is because, in your judgment, it will hurt the dairy industry to continue the sale of this filled milk.

Dr. Larson: I believe that there should be some control or regulation of this product, or it will hurt the dairy industry.

Mr. Kincheloe: It is already controlled under the pure food and drugs act. How do you want it regulated any further?

Dr. Larson: I mean so that they will not enter into direct competition under a handicap.

Mr. Kincheloe: Whether you know it or not, you take Dr. Aswell's country, the Southern States——

Mr. Aswell: By the way, what is your State?

Dr. Larson: I am from the State of New York.

Mr. Aswell: Then you do not have any vegetable oils up there?

Dr. Larson: No, sir.

Mr. Kincheloe: I am talking about the American consumer. There are 10,000 towns in the United States to-day

with a population of 1,000 or less where there is not a cow within 50 miles of them.

Dr. Larson: And you want to have one 75 miles away. [fol. 389] Mr. Kincheloe: No; I am talking about the people that live in these towns; they can get this substitute, and they can not get fresh milk. Therefore you would have them do without?

Dr. Larson: I will answer that by saying that that is not the case. This product to-day is not on the market because there was not a dairy product to supply all the demand for evaporated milk.

Mr. Kincheloe: Do you mean to say that in these towns I have mentioned they can get fresh milk from the dairies?

Dr. Larson: No; I do not say that at all. That is not the issue. The issue is between evaporated milk as compared with filled evaporated milk. It is not fresh milk; the fresh milk does not enter into this at all, as I see it.

Mr. Kincheloe: Well, the evaporated milk—they can not get it down there.

Dr. Larson: They can get evaporated milk.

Mr. Kincheloe: How can they get it? The dairies of this country could not supply it all. Do you think there is enough of a dairy industry to supply evaporated milk to every consumer?

Dr. Larson: Why, they had about a billion pounds of evaporated milk last fall that they could not sell.

Mr. Kincheloe. Of course; there were a lot of products you could not sell, because the people did not have the money. But your idea is to charge them more and make them take your product or nothing?

Dr. Larson: I have not said anything about the prices.

Mr. Kincheloe: Oh, yes, you have.

Mr. Voigt. Before this product came on the market, about five years ago, was there any difficulty in any town, village, or hamlet in the United States in procuring evaporated or condensed milk?

Dr. Larson: No; I would assume not.

Mr. Aswell: You just assume it; you do not know it.

Dr. Larson: No. I know it has been for sale, and it has been distributed as far as the demand would take it.

Mr. Kincheloe. You could not know, of course, being here in Washington.

Mr. Voigt: Is it not the fact that in recent years we have been exporting vast quantities of evaporated and condensed milk?

Dr. Larson: Yes, sir.

Mr. Aswell: And at a better price than here.

Mr. Voigt: You do not doubt at all that if the traffic in this compound were stopped, anyone in any store in the United States, practically, could get condensed or evaporated milk?

Dr. Larson: I will answer that by saying that we made this last year 1,500,000,000 pounds of evaporated milk in this country, and we made 85,000,000 pounds of this product.

Mr. Aswell: Do you think you would have made any more if it had not been for this product?

Dr. Larson: About 85,000,000 pounds more, probably, because these same concerns could make the other product. But it is evidently more profitable to make the compound. The reason I make the point that this product is so dangerous to the dairy business is because any imitation of this kind is influenced by the price of the real article. To-day this imitation product is selling for the same price as a good brand of evaporated milk in the city of Washington, which means that the retailer and the wholesaler are making so much more profit on their product that there is an enormous inducement for the sale. That is the reason it is injurious to this business.

Mr. Hays: You say the factories that are turning out this substitute could just as well manufacture the evaporated milk?

Dr. Larson: Yes.

Mr. Hays: But that they turn out the substitute because they can make a greater profit?

Dr. Larson: Yes, sir.

Mr. Hays: In other words, they can turn out the substitute goods at a cheaper price, can they not?

Mr. Larson: Yes, sir.

Mr. Hays: And if it is just as good a product for the public and they can turn it out at a cheaper price with the same percentage of profit, would not the public profit by the substitution, provided their health was not injured?

Dr. Larson: If the product is just as good and does not injure the public by injuring the dairy business——

Mr. Hays: I am not talking about injuring the dairy business.

Dr. Larson: The point is that they can not make this product without the cow.

Mr. Hays: But if they turn out a product that is not injurious, then the health of the public would not be injured by it?

Dr. Larson: Except indirectly, by not getting what they ought to have.

Mr. McLaughlin of Michigan: Let me ask a question or two about the competition of the dairy interests. What do you understand to be included in the dairy interests? The farmers and others who own cows and produce milk and sell it to their customers, whoever they may be? I suppose you include all creameries that make butter? That is a part of the dairy interests?

Dr. Larson: Yes; I would assume so. It is generally considered so.

Mr. McLaughlin of Michigan: You would include, I presume, the manufacturing concerns that make evaporated milk and condensed milk?

Dr. Larson: Yes.

Mr. McLaughlin of Michigan: Now, take those two in order, and tell us how this industry, the filled-milk industry, interferes or is in competition, injuriously to the farmer, with those who have the cows and produce the milk.

Dr. Larson: In the first place, as a general principle, any product that is unstabilized by an outside product that is uncertain injures that industry. Also, the price of the product is influenced by the amount of the product that is offered on the market. If, therefore, the consumers of this country buy, in the place of a dairy product, some foreign product it must depress the market just to that extent.

Mr. Aswell: Does it not help the consumer any?

Dr. Larson: It does not help him. In this case, evidently, if it injures the dairy industry it will affect him through the lack of the other products of the dairy that he does need.

Mr. McLaughlin of Michigan: I have been giving considerable attention to this, reading and listening, and it is urged by some—and I want your answer to this, if you are able to give it—that it is helpful to the producers of [fol. 390] milk because it enlarges their market for their milk. The farmer now sells to the creamery or he sells to

the manufacturers of condensed milk. This is another place, another concern, or another line of business to which he can sell; and there is testimony to the effect that the condenseries making this filled-milk product pay a higher price for the milk to the farmer than is paid by the creamery.

Now, I wish you would discuss that. Is there anything in that?

Dr. Larson: I think not, because your assumption, I believe, is wrong, that this new factory determines the market. That is not what determines the market; the consumer determines that. If you are reaching some new consumers and this product were simply in addition, then your statement would be correct, but it sells to the same consumers and for the same purposes.

Mr. McLaughlin of Michigan: But they are all in the market for the farmer's product, and he can sell to these filled-milk people, or he can sell to the condenseries, or he can sell to the creamery. Now, how is his market restricted?

Dr. Larson: Because his market is influenced by all the product of the country, and if he puts his money into something that is diluted with a foreign product he just cuts down the amount of the total dairy product that goes to the consumer.

Mr. McLaughlin of Michigan: This is urged, too, and I want your opinion on it. When a farmer sells his milk to the creamery practically only the butter fat is used and the skimmed milk is not used. Some of the farmers take it back on their farms. Some of them skim the milk on their farms. Some of them make a good use of the skimmed milk on the farm and some do not. It is urged that this use of skimmed milk makes a market for the entire milk—skimmed milk, butter fat, and all—and in that way it enlarges the farmer's market. What do you think of that?

Dr. Larson: That is not the case at the present time. The majority of the factories that are buying the butter fat for butter are not getting skimmed milk that they can use in this product.

Mr. McLaughlin of Michigan: In making butter they do not use skimmed milk?

Dr. Larson: No; but I say they are not getting the skimmed milk, and they would not get this skimmed milk in good enough quality——

Mr. Aswell: He does not understand your question.

Dr. Larson: Let me see if I can make it clear. As a matter of fact, this product is now made by concerns equipped for making evaporated milk, and they have practically the same equipment, and what they do is to buy whole milk, which they could make into evaporated milk, but which they run through a separator and take the butter fat out, which they sell in the form of cream, as sweet cream for ice cream or butter or other purposes, and then put in place of it this foreign article. If, however, the creameries of this country sell the skimmed milk, the by-product of the manufacture of butter, and put it into a product that would sell that would be advantageous to the industry.

Mr. McLaughlin of Michigan: Well, taking the milk to the creameries and separating it at the creamery involves the loss of the skimmed milk largely, as a general proposition, does it not?

Dr. Larson: In a great many factories. Those who get skimmed milk, however, are now utilizing it in one form or another quite generally.

Mr. McLaughlin of Michigan: Do you mean the creameries that take the butter fat from it——

Dr. Larson: I mean the factories that get the whole milk from the farmers.

Mr. McLaughlin of Michigan: Well, I am talking about the creameries.

Dr. Larson: I am talking about the creameries; they are utilizing the skimmed milk to a larger and larger extent.

Mr. Hays: How are they utilizing it?

Dr. Larson: Making it into evaporated skimmed milk, bulk skimmed milk, sweetened condensed milk, cottage cheese, and products of that kind.

Mr. Aswell: Does that add to the farmer's market?

Dr. Larson: Surely.

Mr. Aswell: Does not this other institution do the same thing?

Dr. Larson: This is another product, a foreign product, and sold in competition with it.

Mr. Aswell: Evaporated skimmed milk is not as pure as whole milk, is it?

Dr. Larson: It is just as pure, but it is not the same product.

Mr. McLaughlin of Michigan: What proportion of the creameries of the country are making such use of the skimmed milk as you speak of?

Dr. Larson: Only a small proportion, because there is only a small proportion that get the whole milk.

Mr. McLaughlin of Michigan: Is not a great deal of whole milk taken to the creameries, there separated, and the butter fat used and the skimmed milk wasted?

Dr. Larson: Very little.

Mr. McLaughlin of Michigan: You think that is not true?

Dr. Larson: I think that is not true; yes, sir. I know it is not true.

Mr. McLaughlin of Michigan: Now, there is another thing I would like your opinion on——

Dr. Larson: Let me say I have been to every State in the Union, and I think I know this creamery business pretty well; and I believe I am absolutely correct when I say that there is only a very small proportion of the milk of this country that is made into butter.

Mr. McLaughlin of Michigan: The farmers then skim it at home?

Dr. Larson: Yes, sir.

Mr. McLaughlin of Michigan: What do they do with this skimmed milk?

Dr. Larson: Most of them feed it to live stock.

Mr. McLaughlin of Michigan: There is a great deal of it wasted, however?

Dr. Larson: At certain seasons of the year, no doubt.

Mr. McLaughlin of Michigan: Then there is another phase of the question that has been presented to me, and that is that the opposition to this filled milk industry comes more from the creameries than it does from the farmers who produce milk. That is because these filled milk people get the whole milk, and they take out the butter fat and [fol. 391] make butter and put that butter on the market in competition with the butter of the creameries, and for that reason it is said that the opposition to this industry and the support of this bill comes more largely from the people engaged in the creamery business than it does from the farmers. I have not been able entirely to answer that. What do you say about it?

Dr. Larson: My judgment would be that at the present time it is not a serious matter, from the standpoint of the

manufacturer of butter. I say at the present time. When you consider that the amount of butter that could be made in the manufacture of this filled milk during the past year would only amount to about 8,000,000 pounds, while we manufactured in this country 1,500,000,000 pounds of butter, it is not serious. It does affect the price, because there is just that much more.

Mr. Aswell: Then according to your statement, if these gentlemen would promise not to increase their business you would not object to their manufacturing what they are manufacturing?

Dr. Larson: From the standpoint of that principle?

Mr. Aswell: If they would promise not to increase it any, you would be satisfied?

Dr. Larson: If they did not increase it, from the standpoint of the dairy industry it would not be a serious thing. As I said before, they are making 85,000,000 pounds of this product to-day, and we are producing 1,500,000,000 pounds or more of evaporated milk. But the point is, it is growing so very rapidly.

Mr. McLaughlin of Michigan: Your point about this industry is that it will reach a point where it may be injuriously competitive with the cream that makes butter?

Dr. Larson: Yes, sir. Also, we have already much indication that this is going on in other products of the dairy. That is the point that affects the dairyman. Imitations of ice cream, for instance, are made right now. Where is it going to end?

Mr. McLaughlin of Michigan: I think there is a good deal in your statement that the consumer is deceived when he buys this product, not that it is deleterious, but that it is not what he thinks he is getting and is not as nutritious as the product he thinks he is getting. I agree with you also that the dairy industry is of vital importance to this country. Anything that injures it, that retards its development, is harmful to the people, because real milk and real butter are absolutely necessary to the health of the people of this country. And it may rise to a point of national interest and national concern.

Mr. Clague: In connection with what the gentleman has stated, I wish to have it appear in the record that I inquired at a large number of stores in Washington just to find out the price of Hebe within this last two weeks, and condensed milk, and almost without exception the price was

the same. I did not go to 156, but I went to quite a large number of the leading grocers in this city.

Mr. Aswell: That is all the more reason why these gentlemen should be on the square with this committee and investigate it and come back and report.

Dr. Larson: Week before last these 156 stores sold the real product for 9 cents for the large can and the filled milk for 10 cents.

Mr. Aswell: It must be a very popular product if people pay more for it than they do for the other.

Mr. McLaughlin of Michigan: Does anyone desire to ask any further questions of this witness?

Mr. McKee: May I ask one question. Are those brands of evaporated milk that you referred to the standard brands, like Pet, Carnation, etc.?

Dr. Larson: I do not know what you mean by standard: they comply with the standards of the United States Government. It was common condensed milk, complying with the United States standards. I do not want to discuss individual brands; I do not have anything to do with the enforcement of the food regulations.

Mr. Aswell: I do not see any reason why you should not tell him what brand it is, so he can investigate it.

Dr. Larson: He can do the same. I just state it as information that I happen to have.

Mr. Aswell: I am curious to know why you hesitate to name the brands.

Dr. Larson: I can tell you the reason; because I am dealing with the producers of these products. Our men are investigating——

Mr. Aswell: So are we; we want to get the truth.

Dr. Larson: It is easily gotten. Any one of the 156 stores can tell you.

Mr. McKee: I know that there are a number of privately labeled brands that were put on the market at forced sales and sold at low prices. I will make this investigation and be very glad to make a report on it.

Mr. McLaughlin of Michigan: Is there anybody else desiring to make a statement?

Mr. Davis: Mr. Chairman, Mr. McKee has spoken for the Hebe Co. I would like for you to hear Mr. Glenn P. Cowan, of the Carolene Co.

Statement of Mr. Glenn P. Cowan, Representing Carolene Products Co., Chicago, Ill.

Mr. Cowan: Mr. Chairman, my name is Cowan, and I represent the Carolene Products Co., of Chicago, manufactures of compound milk under the trade name of Carolene.

We oppose the passage of this bill, because we feel it would legislate out of business a healthful, wholesome, nutritious food product, which generally is—contradicting the statement that Dr. Larson made here—sold at a lower price to the consuming public. I think this condition in Washington where compound milk is sold at the same price as evaporated is an unusual condition. I know that is not true in Detroit, and I knew it is not true in Chicago. Our price on compound milk is $3.50 a case. The price of the standard brands of evaporated milk, the large sellers, is $5 a case. If the retailers are selling it at the same price here in Washington they are profiteering. I do not know how the manufacturer is going to control the retail price, but over a period of time compound milk will sell at 2 and 3 cents a can less than the evaporated milk.

The spring of the year is, of course, a most unfavorable time to make comparisons, due to the fact that butter fat is always lowest in May and June. Also, production is much heavier in the flush months, and the manufactures making evaporated milk are forced to throw on the market [fol. 392] their evaporated milk, which the chain stores buy at a price and sell at a price. I venture to predict that two months from now you will be able to buy compound milk much cheaper in the city of Washington.

On the question of health, we feel that compound milk is not deleterious to health in any way, that it is a wholesome food product, and that it has a legitimate use, and that in the average American diet, varied as it is, any deficiency there may be in the compound milk is easily made up in the other foodstuffs consumed. In the absence of more definite information, however, we do put on our label a warning to the mother, "Do not use in place of whole milk for infant feeding, where that is made an exclusive diet." I think that precaution is a wise one.

Mr. Aswell: Is that label on all the cans you sell now?

Mr. Cowan: Not those that we made up to sometime in June.

Mr. Aswell: All that you are making now bear that label?

Mr. Cowan: Yes; they all have that warning on them.

The proponents of this bill say it is for the farmers' interests. I beg to differ with him——

Mr. Aswell: Can you answer Mr. McLaughlin's three very important questions about how it affects the farmer's market; how it improves the farmer's market for milk?

Mr. Cowan: By selling skimmed milk as a human food, we can afford to pay the farmer more money for his skimmed milk than the creameries can. And it will increase the consumption of skimmed milk, due to the fact that compound milk has been sold right along throughout the country generally at from 2 to 3 cents a can less than the evaporated milk, and the housewife will use it more freely at three cans for a quarter, which is the prevailing price in Detroit, than she will use evaporated milk at 10 cents, and the standard brands are higher than that.

Last year it is true that from seven to eight million pounds of coconut oil were used in the manufacture of compound milk, and that may have replaced the market for that much butter fat for the farmer. On the other hand, approximately 500,000,000 pounds of skimmed milk were used in making this product. The product is new. It has not had a chance really to become generally known. In putting any new product on the market considerable inertia is encountered. It takes time to educate the people to use it. But I believe that about 90 per cent of the evaporated milk to-day is used only as a coloring agent in coffee, and a comparatively small part of it is used in cooking and baking. That is the big fact. If the housewife will use this compound milk in her cooking and baking, she will use several times as much as she now uses of whole milk.

I had occasion to go to New York some time ago, and our representative there invited me out to his home to dinner. His wife gave us what she called a "Carolene dinner." We had a Carolene soup, made of Carolene. We had mashed potatoes in which Carolene had been stirred. We had a cream gravy made out of Carolene. We had creamed vegetables creamed with Carolene. We had a pudding of some kind with a Carolene cream sauce on it. We also had some sort of muffins in which she had used Carolene. All that only goes to show the possibilities of the use of this product.

Mr. McLaughlin of Michigan: You spoke of some of these dishes being "creamed" with this product. There is no cream in it, is there?

Mr. Cowan: This product was used as flour and water would ordinarily be used. There is very little cream used in the average American household in creaming vegetables; more often it is flour and water.

Mr. McLaughlin of Michigan: But you do not put this on the same footing with flour and water, do you?

Mr. Cowan: It is much better, and it will be used in place of flour and water for creaming vegetables if the product has a chance. And at the lower price the housewife will use it much more, thus creating a bigger outlet for skimmed milk.

Mr. Voigt: At this dinner, did you have Carolene in your coffee?

Mr. Cowan: I think we did.

Mr. Voigt: Did you have ice cream made with Carolene?

Mr. Cowan: No; we did not at this dinner. It would not have been ice cream; we might have had frozen Carolene.

As I say, approximately 200,000,000 pounds of skimmed milk were used last year in making compound milk, and the surface has not been scratched of the marketing possibilities of this product. There is no reason why ten times 200,000,000 pounds of skimmed milk should not be used every year in making this compound. And if skimmed milk were used in those preparations the manufacturers would enjoy a much better market for skimmed milk and other products and could afford to pay the farmer more for it. To-day there is a certain demand for cream for bottled cream and ice cream and for other manufacturing purposes, such as candy, etc. In order to make a pint bottle of 20 per cent cream, which is the average percentage of butter fat in the cream distributed in the cities, you have to skim about 7 pints of milk. This creates a surplus of 6 pints of skimmed milk.

The companies that to-day are selling cream and not making compound have to put their skimmed milk into sweetened cream or condensed or powdered milk, all of which products are a drug on the market. Ninety per cent of the time you can buy them for less than the cost of manufacture. No good business man would think of going into the business of manufacturing sweetened skimmed condensed milk to-day for a profit, because those products are

used simply as a dumping ground for skimmed milk. They are sold 90 per cent of the time at less than the actual cost of production.

But here is this situation. You have got to have cream. What are you going to do with the skimmed milk? So you make up powdered skimmed milk, or make it into sweetened skimmed milk. Some little part of it is made into cottage cheese.

Mr. McLaughlin of Michigan: Are you connected with any factories?

Mr. Cowen: Yes; we have three plants in the State of Michigan, at Fenton, Hasting, and Grand Ledge. We have bought a lot of skimmed milk in the last few months. Dr. Larson says that skimmed milk is not used from the creameries. We have bought a lot from surrounding creameries and other plants that had no market for their skimmed milk, shipped it down to our plant, and made it into milk [fol. 393] compound. I think that would be the general tendency as the market broadens.

Mr. Voigt: In the last six months how much of the skimmed milk that was used in the manufacture of this compound have you bought as skimmed milk?

Mr. Cowan: We did not get into this business—we took over the Carolene Co. in March. Since that time I should say almost half of our product has been made from skimmed milk shipped into our factory from other points.

Mr. Voigt: What are you paying for skimmed milk as such?

Mr. Cowan: We are paying various prices. Naturally, we get it as cheap as we can.

Mr. Voight: What are you paying now?

Mr. Cowan: At the present time we are not buying any, because the supply is shortening up and there is quite a demand for fluid milk.

Mr. Voight: What was the last price you paid?

Mr. Cowan: About 65 cents a hundred. We bought that from the Detroit Creamery Co. and shipped it from points along the Pere Marquette to Grand Ledge. We bought some milk from Brighton and shipped it to Grand Ledge.

Mr. Voight: How much are you paying for coconut oil now?

Mr. Cowan: I think the last we bought cost us 12 or 12½ cents a pound delivered to our factory.

Mr. McLaughlin of Michigan: What is the effect on a local creamery of the locating of one of your factories in the vicinity?

Mr. Cowan: We have usually been able to pay a higher price for milk than the creameries have, due to the fact that we manufacture the skimmed milk. And as time goes on that will be the general tendency. We will see a reversion to whole milk creameries, creameries equipped to manufacture the whole milk into edible products.

Mr. Aswell: Do you use any other vegetable oils in this product?

Mr. Cowan: We have never tried anything but coconut oil.

Mr. McLaughlin of Michigan: Will the creameries continue to operate after your factory is located in a town?

Mr. Cowan: Some have, and some have not. Some have closed up.

Mr. McLaughlin of Michigan: And quite uniformly your company will pay more to the farmer for his milk?

Mr. Cowan: We buy his whole milk, while the creamery only buys the butter fat.

Mr. McLaughlin of Michigan: Don't you buy a good deal of whole milk from the farms?

Mr. Cowan: We buy all whole milk; we do not buy any separated milk from the farm. As I say, the creameries in our neighborhood buy only gathered cream which is separated on the farm.

Mr. McLaughlin of Michigan: Well, you buy some skimmed milk from the farms, some from the creameries——

Mr. Cowan: No; the skimmed milk that we buy is all bought from other plants in our vicinity, from creameries and from condensing plants not equipped to make compound milk.

Mr. McLaughlin of Michigan: Those are your sources of supply? You buy some skimmed milk from the farms?

Mr. Cowan: No; we do not buy any skimmed milk from the farm. The farmer can not produce skimmed milk on his farm of a quality that will enable you to make compound milk out of it.

Mr. McLaughlin of Michigan: But the farmers separate a lot of milk?

Mr. Cowan: They do; they separate it and feed the skimmed milk to their stock.

Mr. McLaughlin of Michigan: They do not sell any of that to companies like yours?

Mr. Cowan: I do not know of a farmer selling skimmed milk anywhere in Michigan.

Mr. Voigt: Then the tendency is that when you establish one of your compound milk plants in a given community it will drive out the existing cheese factories or creameries?

Mr. Cowan: Creameries, if they are not equipped to buy the whole milk and manufacture it as we do.

Mr. Aswell: Does that injure the farmer?

Mr. Cowan: It benefits the farmer. He gets a better price for his whole-milk product.

Mr. McLaughlin of Michigan: He gets a better price where you are competing with the creameries for the purchase of milk, but after you drive them out of business do you think you would continue to pay the higher prices?

Mr. Cowan: If we have a market for our skimmed-milk product; yes.

It is estimated that last year approximately 30,000,000,000 pounds of skimmed milk were used for stock feed——

Mr. Clarke: May I suggest that as far as we are concerned in my State, we have now a pooling agreement among the farmers of New York, New Jersey, Massachusetts, and Vermont. Fifty-five thousand now have signed up with the Dairymen's League to pool their milk. The league then controls the marketing of it.

Mr. McLaughlin of Michigan: I know all these Michigan towns, and I know something of the business of the creameries and the condenseries. Two or three years ago I heard a good deal about creameries going out of business because they could not compete with the condenseries.

Mr. Cowan: That was true, and it was a good thing for the farmer if they went out of business, if the farmer got a better price for his milk.

Mr. McLaughlin of Michigan: If he got a better price, yes.

Mr. Cowan: And the manufacturer could afford to pay a better price, because he was making some use of the skimmed milk, which really contains more than half of the food value of the milk. That is the trouble with the dairy industry to-day—selling its product on the basis of butter fat.

Mr. McLaughlin of Michigan: Is the manufacture of butter by these manufacture-s of this compound increasing rapidly?

Mr. Cowan: I do not know what the other manufacturers are doing, whether they are making much butter out of the cream which they separate or whether it is largely sold as fluid cream for ice cream, candy, and other purposes.

Mr. McLaughlin of Michigan: At your factory at Hastings, for instance, have you a big sale for the cream, or do you make it into butter?

[fol. 394] Mr. Cowan: At certain times of the year we sell it all as cream. At other times we have to churn a lot of butter. We have sold quite a lot of it to ice cream companies——

Mr. McLaughlin of Michigan: Not at Hastings?

Mr. Cowan: No; we churn at Grand Ledge, and we ship the cream over there. We churn it sweet and sell it to the ice-cream manufacturers for making ice cream.

Mr. McLaughlin of Michigan: At Detroit and other cities around there?

Mr. Cowan: Yes. The creamery industry would be in better shape to-day, and a whole lot more butter would be used, if they made whole-milk butter. The curse of the butter business has been a lot of undergrade butter that has come on the market. You know and I know that if you have good butter on the table you will spread it on thicker than if it is rancid or not of good flavor. It seemed to be almost impossible to make the best grade of butter, judging from the receipts of undergrade butter in the markets of the country, made from gathered cream. That butter does not keep as well as butter made from sweet cream. We have got butter made out of sweet cream in storage now, experimental lots, that were churned a year ago last May, and the butter is just as good to-day as when it was put in storage. But that is not true of butter made out of gathered cream, which has to be neutralized before churning.

Mr. Rawl, formerly Chief of the Dairy Division of the Department of Agriculture, has made the prediction that in years to come all creameries will be operated as whole-milk creameries, equipped for the manufacture of skimmed milk into products for human consumption, and will make whole-milk butter, and they will be able to pay the farmers a better price for milk, because they can use the skimmed milk. Some

creameries throughout the country have put in condensing apparatus in the last year.

Mr. McLaughlin of Michigan: Did Mr. Rawl publish anything to that effect?

Mr. Cowan: Yes; there was an article read before some convention somewhere, published in the New York Produce Review about a year ago. I do not have it here, but I have it in my files.

Mr. Voigt: He did not advocate the making of milk compound, did he?

Mr. Cowan: No; he did not advocate the making of milk compound; he advocated the utilization of skimmed milk for human food, which we are doing in putting it into compound milk and selling it throughout the country to the housewife at from 2 to 3 cents a can cheaper than the evaporated milk, with the result that she will use it more freely than evaporated milk.

Mr. Voigt: Do you not think it rather a singular thing that a man that has knowledge of the advantages of your compound should have failed to advocate that the skimmed milk be turned into your compound?

Mr. Cowan: He did not advocate that it be turned into any particular product.

Mr. McLaughlin of Michigan: Evidently his idea was that the creamery would make butter and use the rest of the milk for making evaporated milk or condensed milk? He did not say anything about any compounds mixed with foreign substances?

Mr. Cowan: He did not make any statement as to what it would be used for, except that it would be made into products for human consumption.

Mr. Voigt: Your personal feeling is that the compound business is only in its infancy?

Mr. Cowan: I am satisfied of that.

Mr. Voigt: And you are satisfied that if the business is permitted to go on it will grow to very large proportions?

Mr. Cowan: It will grow to very large proportions and afford an outlet within a few years for probably two or three billion pounds of skimmed milk a year. If it will take that much skimmed milk off the market, the manufacturers making sweetened skimmed condensed milk or skimmed milk powder will be able to get better prices for their products, and in turn buy more whole milk from the farms. It would decrease the use of skimmed milk for the feeding of stock.

It has been estimated that only 20 to 30 per cent of the food value is saved in the form of pork.

Mr. Voigt: Your opinion is that the manufacture of this product is a benefit to the consumer and the producer?

Mr. Cowan: Absolutely.

Mr. Voigt: If that is true, how do you account for the fact that all the milk-producing organizations of the country are opposing the manufacture of the compound?

Mr. Cowan: Well, I do not think the dairy farmers themselves are opposing it. I think that if the facts and figures on both sides could be presented individually to the dairy farmers of this country they would be in favor of this bill. It is not the farmers. It is the secretaries and the presidents and the attorneys of the dairy unions and the dairy organizations that are fighting for this bill, and they have got to do something to keep their jobs.

Mr. Aswell: It is the propaganda of agitators?

Mr. Cowan: Yes; that is only an opinion.

Mr. Voigt: Take the dairy union of New York, for instance, which has, I think, almost 50,000 members. Every one of those members is a milk producer. Do you think that the officers of that organization are going to stand up for a given measure which is injurious to the people they represent simply because they want to hold their jobs?

Mr. Cowan: It may not be injurious from their point of view. They may not see the thing from the side we do. They may not see the possibilities in the future market for compound milk.

Mr. Voigt: You think that those people are so blind to their own interests that they are seeing this thing in the wrong light?

Mr. Cowan: I think so.

Mr. Voigt: How do you account for the fact that all farm organizations are opposed to the manufacture of this compound? Don't you think that some of them ought to be able to see the light?

Mr. Cowan: I have talked to individual farmers who have been able to.

Mr. Voigt: I am talking now about the farm organizations as a whole. Do you think they are all wrong?

Mr. Cowan: I think so.

Mr. Voigt: If this business grows as you expect it to grow, there will be a big demand for skimmed milk?

[fol. 395] Mr. Cowan: Yes, sir.

Mr. Voigt: And if we produce a larger quantity of skimmed milk we will then also produce a larger quantity of butter fat?

Mr. Cowan: Skimmed milk is already being produced, but it is being used for stock feeding, where it should be used for human food.

Mr. Voigt: But if your business grows you are going to make an effort to get the skimmed milk?

Mr. Cowan: Yes.

Mr. Voigt: That is, your business will be to separate the butter fat from the whole milk so that you can get hold of the skimmed milk. That will have a tendency to produce an undue quantity of butter fat? Is not that true?

Mr. Cowan: I do not think it will work out that way. I think it will result in the utilization of the skimmed milk that is now being produced very largely. Factories will be equipped to manufacture this.

Mr. Voigt: Let us go on with this argument. Suppose your business grows to four times its present proportions. That will mean that in the manufacture of your compound there will be four times the amount of skimmed milk used. That will bring about a change in the dairy business of this country so as to separate the whole milk into the butter fat and the skimmed milk. That is true, is it not?

Mr. Cowan: To a certain extent; yes.

Mr. Voigt: That is, where now we would use the whole milk for a given purpose we would separate the ingredients of the whole milk into skimmed milk and butter fat?

Mr. Cowan: But I think large quantities of whole milk would still be used.

Mr. Voigt: Certainly; large quantities of whole milk would be used, but the tendency would be to separate milk more than is being done at the present time?

Mr. Cowan: Probably so; and some of this would be used where evaporated milk is now sold. On the other hand, there would be more of this compound sold for purposes for which evaporated milk is not used to-day.

Mr. Voigt: But the tendency would be to cause an over-production of the butter fat?

Mr. Cowan: That could well be taken care of by the superior quality of the butter that would be made from whole milk.

Mr. Voigt: Well, there would be a comparatively larger amount of butter fat or butter than you have at the present time?

Mr. Cowan: Not if the manufacture of compound resulted in the buying of the skimmed milk which the farmers now are feeding to stock.

Mr. Voigt: Well, you are going on the assumption that all the whole milk would be delivered to the factories, which is not the case to-day.

Mr. Cowan: If this business increases, it would be in the more dense dairying sections. I will grant that in the more remote sections where they have only two or three cows there would not be enough milk within a reasonable hauling radius to warrant the investment in a factory to manufacture these products.

Mr. Voigt: Would not the consequence be, if this business grows to large proportions, that we would have actually an overproduction of butter, thus reducing the price of butter, which would be a direct injury to the dairy man?

Mr. Cowan: No; I do not think it would work out that way. I do not think it would result in a great stimulation of milk production; it would result in the diverting of the skimmed milk into other channels, into human food instead of stock food.

Mr. Voigt: Do you think that the 8,000,000 pounds of coconut oil worked into the compound last year displaced butter fat to any degree?

Mr. Cowan: A certain amount of cream has to be produced every year. We have the skimmed milk left over. We added to that the coconut oil and sold it as compound milk, and at the lower price at which it is sold it is used for purposes that evaporated milk would not be used for. That being the case, it did not entirely displace evaporated milk.

Mr. Voigt: Then let me ask you this question. If any housewife to-day using the compound could not get the compound would she use the regular condensed or evaporated milk?

Mr. Cowan: Not as freely, at a higher price. Naturally, the cheaper the product is the more she would use of it. And it is an excellent product for cooking and baking.

Mr. Voigt: If you removed the compound from the market to-day would the housewife use a considerable proportion of regular condensed or evaporated milk in the place of the compound?

Mr. Cowan: She would use some, in those families where they could afford to use it.

Mr. Voigt: No one knows how much she would use?

Mr. Cowan: No. Of course a cent does not seem like much, but in the fluid milk business the distributors notice the difference when they drop the price of milk 1 cent a quart.

Mr. Voigt: You say that up to this month you have not given any warning on your label that the product should not be used for infant feeding?

Mr. Cowan: No, we have not. We purchased the business of the Carolene Co. in March, and used up their stock of labels.

While we are on that question of skimmed milk I might say that there have been thousands of those plants trying to create a market for skimmed milk in the form of cottage cheese. The Department of Agriculture, working in conjunction with the State agricultural college and the distributors of milk in the city of Detroit, put on a campaign for the sale of cottage cheese. It resulted in a temporary increase in the consumption of skimmed milk. I have since asked several distributors of milk in that city about the cottage cheese, and they say they are not selling much more than they ever did.

Skimmed milk is looked down upon by the people. They do not appreciate the food value of skimmed milk. Not long ago, in an attempt to find other outlets for skimmed milk, I called upon nearly all the large bakers in the city of Detroit in an attempt to get them to use liquid skimmed milk instead of water in their bread. We had some tests conducted by the technical department of the bakers' organization, and the results showed that the lower loss by evaporation in baking, due to the retention of moisture by the skimmed milk solids, would more than pay for the skimmed milk, so it would not cost the baker any more to use the skimmed milk, because he would get more loaves from the same amount of dough.

[fol. 396] I went to one of the large bakers in Detroit and told him of these experiments, and he said, "Why, what is in skimmed milk? You take the cream out of the milk and there is nothing but water left." He was a large baker in Detroit. That is quite the popular idea about skimmed milk.

Mr. Aswell: Do I understand you to say that while you use 8,000,000 pounds of coconut oil——

Mr. Cowan: There is approximately 200,000,000 pounds of skimmed milk.

Mr. Aswell: That that use of coconut oil made a market for 200,000,00 pounds of skimmed milk?

Mr. Cowan: Yes, sir.

Mr. Aswell: At about 65 cents a hundred pounds?

Mr. Cowan: That is the whole industry. It made a market for 200,000,000 pounds of skimmed milk.

Mr. Voigt: It was testified here last week by a representative of the Hebe Co. that the last price they had paid for skimmed milk was 35 cents a hundred.

Mr. Aswell: What were you getting for this skimmed milk before you started the manufacture of the compound?

Mr. Cowan: In one place they were running it down the creek. In another place they did not know what to do with it; the city authorities would not let them put it in the creek, and they were up against it. Of course that was in the flush season, in May and June, when there is a big surplus of skimmed milk.

The creameries are for this bill, because they do not like the competition of the condenseries that are using the whole milk and are buying the milk. The creamery that uses only the butterfat from the farmer's milk and forces him to use the skimmed milk can not afford to pay the price that the condensery can, and they have been inimical to the condensery's interests right along. Certain trade papers have been fighting the condensery interests right along.

We ask that the committee give careful consideration to this bill. There has been a lot of money spent in developing this industry, which, we think, is really the first successful attempt to find a market for skimmed milk, and it looks like a short-sighted policy on the part of the farmers to ask that this product be legislated out of business.

If they want to protect the dairy business, pass a law forcing the housewife to use nothing but butter in her baking. You will create a market for butter that will greatly stimulate the price of butter fat. But suppose this product is in direct competition with evaporated milk? Suppose it is not for the best interests of the farmer? Is there any reason why a healthful food product which is sold cheaper

should be legislated out of business? How about the consuming public that buys this product at a lower price?

Mr. Voigt: Touching on the point that a large amount of money is invested in this new industry, it is a fact that this compound is being made by the same people who formerly were and at the present time are making the regular condensed or evaporated milk?

Mr. Cowan: I think most of them are making both that are making compound. We are not.

Mr. Voigt: There is no concern that has gone into business for the special purpose of making this compound?

Mr. Cowan: No; but there are a number that when this situation clears up would be glad to equip their plants; concerns that now get skimmed milk that they do not know what to do with, to make this product. But they are not going into the business with the business in its present precarious condition.

Mr. Voigt: But there has been no great amount of money invested in this particular business?

Mr. Cowan: There has been a large amount of money invested in developing a market for this product.

Mr. Voigt: In advertising?

Mr. Cowan: And direct sales work—missionary work, we call it—sending our salesmen around to call on the grocers.

Mr. Voigt: The amount of money invested in this compound business in infinitesimal as compared to the amount of money invested in the dairying business in this country?

Mr. Cowan: It is, but it may be just as large to the man that has it in it, to the individual.

(After informal discussion as to further hearings:)

Mr. Davis: Mr. Chairman, we have one other manufacturer here who is largely interested in this industry, who has come all the way from Indianapolis. We have also brought here a doctor who was employed entirely, even before this bill was introduced, to start some investigations of the food value of these products. We would like to have an opportunity for them to be heard.

Mr. McLaughlin of Michigan: Can they file a statement?

Mr. Davis: They are here to-day. They will not take very long.

Mr. McLaughlin of Michigan: We can not take any more time to-day, and I understood arrangements had been made for the other side to be heard to-morrow.

Mr. Davis: Can we not have a little time to-morrow? We will not take more than, say, half an hour.

Mr. McLaughlin of Michigan: I think the arrangements should be carried out, to have those who are in favor of the bill heard to-morrow morning. Then if there is time we may hear their statements.

Mr. Davis: You see, Mr. Chairman, our time to-day was taken up by this other matter that was discussed here.

Mr. McLaughlin of Michigan: I think we had better carry out the arrangements that have already been made and hear the proponents to-morrow.

The committee will stand in recess until to-morrow morning at 10 o'clock.

(Thereupon, at 12:10 o'clock p. m., the committee adjourned to meet at 10 o'clock a. m., to-morrow, Wednesday, July 20, 1921.)

[fol. 397]

Committee on Agriculture,
House of Representatives,
Wednesday, July 20, 1921.

The committee met at 10 o'clock a. m., Hon. Gilbert N. Haugen (chairman) presiding.

There were present Mr. Haugen, Mr. McLaughlin of Michigan, Mr. Voigt, Mr. McLaughlin of Nebraska, Mr. Tincher, Mr. Sinclair, Mr. Clague, Mr. Clarke, Mr. Jacoway, Mr. Rainey, Mr. Aswell, Mr. Kincheloe, Mr. Jones, and Mr. Ten Eyck.

The Chairman: What program do you suggest this morning, Mr. Voigt?

Mr. Voigt: I have here a few people who want to make short statements on this bill.

The Chairman: Are you through with the representatives of the Department of Agriculture?

Mr. Voigt: Yes; so far as I am concerned.

The Chairman: Was it not expected that Dr. Langworthy would appear before the committee first.

Mr. Voigt: I would suggest that these other witnesses be heard first because the representatives of the department can be heard at any time.

Mr. Aswell: The last thing we did yesterday before adjournment was to invite the representatives of the Department of Agriculture to be here this morning at 10 o'clock. I do not care, though, how you proceed.

The Chairman: Are there any persons here to be heard in opposition to the bill?

Mr. McKee: Very briefly, Mr. Chairman.

The Chairman: We must pursue some order in the hearings. The order made was that the department's representatives should be heard first, next those in opposition to the bill, and then those in favor of the bill should conclude the hearing.

Mr. Voigt: Let me correct you there, Mr. Chairman, to say that the understanding was that yesterday was to be devoted to the opponents of the bill and to-day the proponents were to close.

Mr. Aswell: Yes; but we did not give them yesterday more than one-third of the time.

Mr. Voigt: And the opponents to the bill have had over two-thirds of the time now.

Mr. Kincheloe: Personally, I would like to hear from the Department of Chemistry.

Mr. McKee: All that we have to say, Mr. Chairman, will be very brief.

The Chairman: What is the pleasure of the committee? Shall we hear the chemists first?

Mr. Aswell: Have you a chemist here also?

Mr. McKee: No, sir.

The Chairman: The chemist is here from the Department of Agriculture.

Mr. Kincheloe: That is the one we are talking about, and he is the man I would like to hear.

Mr. Clague: Mr. Chairman, I move that we hear first the chemist from the department.

(The motion being duly seconded, prevailed.)

Statement of Dr. C. F. Langworthy, of the Department of Agriculture, Washington, D. C.

Mr. Kincheloe: Doctor, what position do you hold?

Dr. Langworthy: Chief of the Office of Home Economics.

Mr. Aswell: The Department of Agriculture reported they did not have a chemist, so they sent a representative of the

economic department, and I think he ought to take the place of the chemist this morning.

Mr. Voigt: What position do you hold, Doctor?

Dr. Longworthy: I am chief of the Office of Home Economics. We deal with food, clothing, and household equipment and their use in the home.

Mr. Kincheloe: Are you a chemist, Doctor?

Dr. Langworthy: I am a chemist by training.

Mr. Kincheloe: How much experience have you had as a chemist?

The Chairman: I will state for the information of the committee that the department suggested that Dr. Langworthy probably knows more about this proposition than anyone now in the department. That is the information that was given us from the Department of Agriculture.

Mr. Kincheloe: Doctor, are you acquainted with these products which they called filled milk, such as Hebe and the other brands of stuff that is being put on the market now?

Dr. Langworthy: I know them as market commodities. I have never carried on any experimental work with them. I have general knowledge, I think, of what they contain, and, in a general way, understand how they are made.

Mr. Aswell: Have you ever analyzed them?

Dr. Langworthy: I have not analyzed them.

Mr. Jacoway: Could you testify as to their food value?

Mr. Kincheloe: That is what I was trying to bring out. I want to know whether, in your judgment, they are deleterious to human health.

Dr. Langworthy: Such a question as that, as I understand it, resolves itself into this: The constituents of which they are made are foodstuffs, and yet skimmed milk and vegetable fat, of which they are composed, as I understand it, lacks the vitamines of the whole milk.

Mr. Kincheloe: There is no doubt but what they are not as nutritious as whole milk, but what I am asking you is whether there is anything in them that is detrimental or deleterious to human health.

Dr. Langworthy: Neither of the constituents are complete foods, and if they were used to the exclusion of other foods in the diet, they would be deleterious.

Mr. Kincheloe: That still does not answer my question. You can certainly answer yes or no to the question of

whether in your judgment this stuff is deleterious to human health.

Dr. Langworthy: I would have to say that it would depend on the way it was used.

Mr. Kincheloe: What do you mean by that?

Dr. Langworthy: You have got to get vitamines, and unless you got them from other foods—if your diet does not contain them and you relied upon this product to get them, you would not get them.

[fol. 398] Mr. Kincheloe: The evidence here is that skimmed milk contains 50 per cent of the vitamines.

Mr. Aswell: Fifty per cent of the vitamines of whole milk.

Mr. Kincheloe: Yes.

Dr. Langworthy: I do not know that figure, and I could not give you the percentages of vitamines that remain in skimmed milk. I regard skimmed milk as an extremely valuable food and as a source of protein. I am not familiar with its value as to its vitamines, because I have not studied that question. I know the vitamine content is very much lessened.

Mr. Aswell: Are the elements in this Hebe or other milk compounds wholesome food or not?

Dr. Langworthy: Skimmed milk is a wholesome food.

Mr. Aswell: Can you not answer yes or no? You know what the elements are. Are the elements wholesome or not.

Dr. Langworthy: And the vegetable fat is a wholesome food, rightly used.

Mr. Aswell: Are the elements in this product wholesome or not wholesome.

Dr. Langworthy: They are wholesome, rightly used.

Mr. Kincheloe: Then is it deleterious to human health, Doctor?

Dr. Langworthy: They might be if you placed undue reliance upon them.

Mr. Kincheloe: Can you not answer that question yes or no? They advertise this stuff to be used in cooking and it has been used in tea and coffee; now, can you not say from your knowledge of chemistry whether or not that is deleterious to human health, being used in that way?

Dr. Langworthy: There are some things that I do not see how you can answer by saying yes or no without giving

a wrong impression. I have told what I understand to be the facts. If undue reliance were placed upon them as sources of vitamines they would not supply it.

Mr. Aswell: Would it be placing undue reliance upon them to use them in cooking?

Dr. Langworthy: It depends upon the amount used. It would depend upon the extent to which it replaces other things. My understanding is that if they were relied upon in infant feeding, as a substitute for whole milk——

Mr. Aswell (interposing): We are not talking about using it in infant feeding, but using it in cooking.

Mr. Kincheloe: Just suppose they are not given to children at all. I am talking about adults.

Dr. Langworthy: If you had a reasonably mixed diet, I can not say that they would be harmful.

Mr. Jacoway: Would they be healthful?

Dr. Langworthy: They would be useful as sources of energy and sources of protein, but not very efficient as sources of vitamines.

Mr. Kincheloe: Of course, not as much as pure milk. We would all agree to that.

Mr. Voigt: Would you recommend the use of this stuff in the home?

Dr. Langworthy: If it were used in the home I should try to teach, in so far as I could, the housekeepers how to use it wisely.

Mr. Voigt: I am talking about general conditions with no particular education about the use of it. Would you recommend the use of this in the homes in the place of regular condensed or evaporated milk?

Dr. Langworth: Not to replace that. It has not the same nutritive value as the milks which contain the butter fat, and can not have it. I have no prejudice one way or the other.

Mr. Aswell: Evidently not. I say, evidently you do not have any.

Mr. Clarke: Doctor, is there not as much injury to the public health in a plain cup of coffee as there is in Hebe or any other preparation that is put into coffee, we will say, to sweeten it.

Dr. Langworthy: I do not think I understand just what you mean.

Mr. Clarke: Is there not as much poison, we will see, or as much of something that is injurious to public health

in a cup of coffee as there is in Hebe which is put into it to sweeten it.

Dr. Langworthy: The fact that coffee has been used for untold centuries in other countries in much the same way as we use it does not indicate that it contains any violent poision, does it? You will remember that Dr. Holmes said that coffee might contain some poisonous matter, but as he had used it and had lived beyond 70 years, he did not regret that he had taken it.

Mr. Jacoway: Doctor, have you read this book gotten out by the Hebe people giving the different ways in which Hebe can be used?

Dr. Langworthy: I have never seen it, sir.

Mr. Jacoway: Would you say that it was a good thing to use in preparing rice for the table, using it as a filler?

Dr. Langworthy: If you used it as you would use skimmed milk, I do not see why you should not use it. If you used it as you would use whole milk, expecting to get the same nutritive value, you could not get it because of its lack of vitamines. Skimmed milk is healthful so far as it goes.

Mr. Jacoway: I am talking about this Hebe preparation.

Dr. Langworthy. It is skimmed milk with vegetable fat added as I understand it; both of them are useful foodstuffs but not useful in the same way as whole milk. That is the point I make.

Mr. Jacoway: If it was used in a proper way in the preparation of foods for human consumption, you would say that it was advantageous?

Dr. Langworthy: I would say that it was useful in the same way that skimmed milk would be useful.

Mr. Jacoway: Well, useful and advantageous mean about the same thing. If you did not mix it correctly but used it solely in a diet, then you would ay that it would be deleterious?

Dr. Langworthy: If you placed the reliance upon it which you would place on whole milk, which is probably the most valuable food product that we have.

Mr. Jacoway (interposing): I am not talking about using it in place of whole milk, but using it and placing the same reliance upon it that the product itself stands for. I will ask the question in this way: If it is used correctly, then you would say it is not deleterious, but an advantageous element that went into food for the human stomach, and

if it was not used in that way, then you would say that it would be deletgrious.

Dr. Langworthy: Your definitions are very restricted. You ask the question in a very restricted way. I still say that I think the substances which compose it are useful foodstuffs used as skimmed milk should be and as a vegetable fat should be used.

[fol. 399] Mr. Jacoway: I will put my question then in another way. State to the committee the ways in which Hebe can be used that would be advantageous to health, and state the ways in which Hebe could be used which would be deleterious to health, if any. Now, that question is as broad as the universe.

Dr. Langworthy: I have never studied the ways in which this product could be used because it has never been referred to the office of Home Economics to study, but skimmed milk is used in a great variety of foods. It is an important by-product of the dairy industry and every one should be interested in seeing that such a by-product is used in the household. We ordinarily use it either for making cottage cheese or to add protein to foods and to enrich the flavor of foods, and in other ways, such as you probably know, as well as I, in cookery. Then the coconut fat, if that is what is used here, and other vegetable fats, have assumed a good deal of use, particularly, in commercial baking, because during the war it was learned—or rather it was said during the war that it was because we did not have a very abundant supply of animal fat.

Mr. Jacoway: Then will you qualify as an expert and state to the committee anything that would be of advantage to the committee relative to the proposition as to whether or not Hebe is deleterious or advantageous as a food product?

Dr. Langworthy: I do not think——

Mr. Jacoway: Can you not answer that question yes or no?

Dr. Langworthy: That question would have to take into account, would it not, the question whether it had any effect on the dairy industry. That is a fact which I do not know. I believe as much milk as possible should be produced in the United States, and that all the milk produced should be used, both in butter fats and the other parts of it. As to

the wisdom of using it in different ways, I know nothing about that.

Mr. Jacoway: If you had the power, would you take Hebe off the market as a food product, or keep it on?

Dr. Langworthy: I do not think I can answer that question, because I do not know the facts which would enable me to answer it.

Mr. Aswell: Doctor, you say the food value is not as great, and I agree with you about that, but I want to know something about this proposition: It is true that it requires 210 pounds of skimmed milk to make 100 pounds of Hebe with the vegetable oil. Now, if what all the chemists have testified to here is true, namely, that skimmed milk has 50 per cent of the vitamines, you would use 200 pounds of skimmed milk and reduce it down to 100 pounds, and the two added together would give 100 per cent of vitamines. Are those vitamines killed in the evaporation process?

Dr. Langworthy: They may be; yes.

Mr. Aswell: Well, were they?

Dr. Langworthy: I can not say. No one can say without examining the product. This is what happens, as I understand it, with the fat soluble vitamine. It is more readily destroyed by long, slow heating than it is by sharp and rather intense heating.

Mr. Aswell: But if you used whole milk you would destroy them just as much as you would in using skimmed milk.

Dr. Langworthy: Yes; but you would have a larger number of them.

Mr. Aswell: But if you destroyed them you would destroy all of them regardless of the number.

Dr. Langworthy (continuing): And the destruction of vitamines is greatly hindered by any method of cooking that passes an air stream through it. I heard a man in a lecture recently say that by passing oxygen—by which I understand he meant an air stream—through cod liver oil, which is very rich in vitamines, he could remove all the fat soluble vitamines. You see the question is so complicated in its chemical relations and so little is known chemically about vitamines and their actions, that it is difficult to make generalizations. I can not make them because I have not worked with vitamines. Such chemists as Dr. Sherman

and Dr. McCollum and Dr. Mendel, who have worked with these things are familiar with the laboratory deductions at this time.

Mr. Clarke: Those gentlemen are all recognized experts and leaders in that line of work?

Dr. Langworthy: They are three of the physiology chemists whom I happen to recall at this time who have worked on vitamines. There are others in the United States.

Mr. Voigt: Do you consider Dr. Hart, of Wisconsin, an authority on this question.

Dr. Langworthy: Dr. Hart has also worked on this problem and was one of the pioneers.

Mr. Voigt: You consider him a recognized authority on that subject?

Dr. Langworthy: I have always understood he was a recognized authority.

Mr. Kincheloe: Then, personally, you could not qualify as an expert in this vitamine proposition at all.

Dr. Langworthy: I have not worked with vitamines. I have worked on general food questions, and I hold my degree in chemistry, but at the time I studied chemistry these subjects had not come to the fore, and my postgraduate work in chemistry and my knowledge of food nutrition matters came through long association with Prof. Atwater.

The Chairman: Doctor, will you briefly state your position in the department and the character of work you are conducting and the character of your experiments.

Dr. Langworthy: Congress has authorized the Department of Agriculture to study the use of agricultural products in the home for food, clothing, household equipment, and the labor incident thereto. That work has been assigned to the States Relations Service and to the Office of Home Economics in the States Relations Service. It is not a part of our work to study manufacturing processes or to study the economics of the situation, but to try and tell the housekeeper how she may use the available food supply to advantage. We have, as you know, prepared these farmers' bulletins that deal with food, and we have one in the press now dealing with milk, which certainly recognizes to the full its value, because nobody can doubt it.

Mr. Aswell: Do you discuss milk compounds in that bulletin?

Dr. Langworthy: There is a table given in here of the composition of a number of milk products, but, as I remember it, the products of which you are speaking, which contain added vegetable fats, I have not included because I know of no analyses that have been made of them.

[fol. 400] Mr. Aswell: If what we have heard here is true and the market for these products is growing in such large proportions, it seems to me that if you wanted to help the housewife you would have discussed that subject in a very long chapter; that is, if you really wanted to help anybody.

The Chairman: You are carrying on experiments in the department?

Dr. Langworthy: Yes.

The Chairman: Now, tell us something about those experiments. I want you to qualify as an expert before this committee, because while you have been before the committee a number of times in the past you are stranger to a number of the new members of the committee, an I would like to have you make just a brief statement along that line.

Mr. Aswell: Mr. Chairman, we are not interested in any of his expert experiments unless they affect the subject now before this committee.

Dr. Langworthy: I have not studied this particular kind of product.

The Chairman: I want him to state his general knowledge of the subject matter.

Mr. Aswell: General knowledge will not help us any unless he knows something about this particular subject, and he says he does not know anything about it.

Dr. Langworthy: I know about the value of the constituents of it, but I have never made any experiment with this product, either with human subjects or with animals.

Mr. Kincheloe: You do not know anything about the chemical composition of Hebe or this other stuff?

Dr. Langworthy: I know what it is made of, not by analysis but from general statements about it.

Mr. Kincheloe: Of course, you agree that it is nutritious, but not as nutritious as pure milk?

Dr. Langworthy: It has not the nutritive value of whole milk because it lacks the vitamines.

Mr. Kincheloe: But you will not say it is deleterious to human health?

Dr. Langworthy: Not when used as skimmed milk or when used as the same kind of fat would be used.

Mr. Kincheloe: The trouble with you doctors is that you evade and get around the court and every one else. As I understand it, the sum and substance of what you have said here is that you have not told us anything, I am frank to say, because you have not answered any of the questions.

Mr. Voigt: Doctor, I would like to ask you a few questions because I think perhaps you know more than you are given credit for knowing on this subject. Do you consider this compound to be in the nature of an imitation of milk?

Dr. Langworthy: I had supposed that it was stated on the label just what it was.

Mr. Voigt: Irrespective of what is stated on the label, do you consider it to be an imitation of milk; would you classify it as such?

Mr. Aswell: It can not be, because it is skimmed milk.

Dr. Langworthy: I should classify it for exactly what it is, a combination of skimmed milk and vegetable fat.

Mr. Voigt: Would you say it is a substitute for milk?

Dr. Langworthy: Not a substitute because it could not be a substitute for it, because it has not the constituents of milk.

Mr. Voigt: Do you not think that in actual practice it works out something like an imitation of milk.

Dr. Langworthy: I am not familiar with its use, sir. If it were used as skimmed milk and as vegetable fat would be used, it would fill the place of those two things used separately, and we certainly want to use skimmed milk in our diet, but if it were used in infant feeding, intentionally or unintentionally, it would not replace milk, and the infants after weaning and the young children require special care in the selection of their diet so that it may contain these vitamines which are essential to growth and health.

Mr. Voigt: Would it replace milk if it were fed to an adult?

Dr. Langworthy: It could not replace whole milk if it were fed to an adult.

Mr. Voigt: Or to children, in general?

Dr. Langworthy: No; nor children in general. It can not replace something which it does not equal in composition.

Mr. Voigt: You consider that milk is our one chief and most valuable food product, do you not?

Dr. Langworthy: Nature has provided two products for the growth of the young—milk and the egg—and the chief food value of the egg, notwithstanding the popular opinion, is concentrated in the yolk, and the yolk contains these vitamines.

Mr. Voigt: Your opinion is that it would be for the best interest of the American people to bring about as large a production and consumption of milk as possible?

Dr. Langworthy: Yes, and to assure that the supply reached the market under conditions so that when the people got it, it was pure and the milk was all used. We have skimmed-milk powders on the market, as I understand it, and skimmed milk is a useful food as a source of preotein but not a very useful food, as I understand it, as a source of vitamines.

Mr. Aswell. Is there much skimmed milk used now as human food outside of these products?

Dr. Langworthy: Yes, sir; I had supposed there was. Skimmed milk is for sale in most cities. Some cities have some restrictions against it but you will recall, as well as I do, that the domestic household has been using sour milk to make cakes and pancakes.

Mr. Aswell: But is there much skimmed milk used outside of the manufacture of these products?

Dr. Langworthy: I had assumed that the major part of the skimmed milk was consumed If it is not consumed in domestic use, it is certainly used for feeding animals to produce the meat supply. My belief is that skimmed milk justifies its use in the home as it always has been used.

Mr. Voigt: Doctor, assuming that this compound is used, at least to some extent, in place of whole milk, would that be beneficial to the American people?

Dr. Langworthy: You can not answer such questions always in just the way you ask them, without giving a false [fol. 401] impression. I should say that you would have to supply, from butter or other sources, if you used this material, the thing which it lacked. I do not know whether I have the right to ask a question or not, but is this a by-product of marketing cream? Does the skimmed milk come as a by-product from marketing cream or making butter or both?

Mr. Voigt: It comes from both sources and also from some other sources. I understand that the people who make this compound extract the butter fat and sell it as cream during certain seasons, and during other seasons they make butter out of it, and then make this compound out of the skimmed milk; and they also purchase skimmed milk from creameries.

Dr. Langworthy: Where the fat has been removed and gone into the food supply of the Nation?

Mr. Voigt: Yes. Would you approve of the substitution of this compound for regular milk in the human diet?

Dr. Langworthy: No, sir; you could not approve of it as a substitute for regular milk in the diet, because it lacks the vitamines, whether you say it lacks all or whether you say it lacks part; it lacks the vitamines of whole milk. Something which is partially whole milk can not equal whole milk.

Mr. Aswell: Doctor, you are familiar with the sweetened cream that is on the market?

Dr. Langworthy: A condensed milk which is called sweetened cream?

Mr. Aswell: Yes. About 50 per cent of that is sugar. Do you think that is as good as milk?

Dr. Langworthy: It has not the same food value as milk because the vitamines and the proteins originally present have been diluted by the presence of sugar.

Mr. Aswell: Does not that occupy identically the same position on the market as Hebe, so far as the economic question is concerned?

Dr. Langworthy. I could not say without knowing the proportion of vitamines.

Mr. Aswell: How much sugar is in sweetened cream, 42 per cent is it not? You would then know how much vitamine is left, because it would be nearly 50 per cent, would it not?

Mr. Kincheloe: Doctor, did you write this Bulletin No. 1207?

Dr. Langworthy: It was written under my supervision.

Mr. Kinchieloe: On page 33 it says.

Skim milk although lacking in fat, is highly nutritious food, especially useful in cooking or combining with other foods. It contains practically all the protein, sugar, and mineral matter of the whole milk.

Certainly, skim milk with a little vegetable fat in it does not hurt anything, does it?

Dr. Langworthy: You have read one sentence out of its context.

Mr. Kincheloe: No; I am reading a whole paragraph.

Dr. Langworthy: That assumes its use in a mixed diet which has an abundance of vitamines from other sources.

Mr. Kincheloe: I thought there would be some qualification to it because you have not answered anything this morning yes or no that I have heard yet. You can evidently tell the committee whether skimmed milk mixed with some vegetable oil is detrimental to human health. Can you answer that yes or no? This is the third time I have asked you that question.

Dr. Langworthy: I shall have to say again, as I did to you before, I am afraid that it depends on the way you use it.

Mr. Kincheloe: Yes; I thought that.

Dr. Langworthy: Salt might be deleterious to the human system, because it would depend upon the way you used it, and I could not say offhand that salt was or was not deleterious without knowing all the circumstances.

Mr. Kincheloe: I should think that a human being could drink too much of your good milk, so that that would be deleterious if they glutted themselves on it or drank it to excess.

Dr. Langworthy: I never knew of anybody doing that.

Mr. Kincheloe: I am not asking you what you know. That could be done, could it not? You can run anything to extremes.

Dr. Langworthy: I do not know whether the stomach could hold so much milk that it would be harmful. I think the stomach holds only about 3 pints.

Mr. Kincheloe: You qualify here as an expert and undertake to tell us first and foremost that pure milk is absolutely healthful, and then you go on to say that there is nothing detrimental in the vegetable fat, and then you can not be positive enough to tell us whether or not this combination is deleterious to the human system.

Mr. Jacoway: Doctor, I think your position is a good deal like a witness who was on the stand out in Arkansas and the lawyer had him under cross-examination and made him admit that corn bread was poisonous and that strych-

nine was a medicine, on the hypothesis that corn bread taken into the stomach when you had typhoid fever was a poison and would kill, whereas strychnine was a medicine which, if taken in the necessary doses, would prolong life. That is about your position, is it not?

Dr. Langworthy: No, sir; I do not think it is.

Mr. Jacoway: You say it depends upon how you use it.

Mr. Kincheloe: I would like to know what the doctor's position is. I have not been able to find out yet.

Mr. Jacoway: He said that if you use it in the right way it is a good food product, but if you do not use it in the right way it is a bad food product. He said that he can not answer the question yes or no and is like the witness who was asked to answer a question yes or no and said that he could not, and then asked if he could ask the lawyer a question for him to answer yes or no, and the lawyer said "yes," and he asked him, "When did you whip your wife last?" And the lawyer said, "I can not answer that."

Mr. McLaughlin of Michigan: I do not think there is anything confusing about the testimony of Dr. Langworthy. He has often appeared before this committee, and we have always found him fair and straightforward.

Mr. Kincheloe: I do not think it is confusing, but it does not give us any information.

Mr. McLaughlin of Michigan: We have always found him fair and straightforward, and I believe everything he says is proper. I do not think anybody will claim that this product is deleterious to health.

Mr. Aswell: He has not denied it.

Mr. Kincheloe: The doctor has not said one way or the other.

Mr. McLaughlin of Michigan: He has said it in a proper way, in my judgment.

[fol. 402] Mr. Kincheloe: What might satisfy you might not satisfy me. So far as I am concerned, I never insinuated that the doctor was dishonest or unfair or anything of that sort, but I contended that he has not given me any information. You may have greater powers of comprehension than I have, and I am willing to concede that.

Mr. McLaughlin of Michigan: I take a different point of view, that is all. I admit I have not the wisdom you have.

Mr. Kincheloe: I am conceding you have more wisdom because you say you understand thoroughly what he has said here.

Mr. McLaughlin of Michigan: I do.

Mr. Kincheloe: And I confess I do not.

Mr. McLaughlin of Michigan: I was trying to say and you would not let me—I have not interrupted you——

Mr. Kincheloe: But I have asked the witness certain questions and I am telling you what I think about it.

Mr. McLaughlin of Michigan: You got one impression from his answers and I get another.

Mr. Kincheloe: Unfortunately, I do not get any, and you do, and therefore I concede that you have more power of comprehension than I have.

Mr. McLaughlin of Michigan: That is a matter of opinion.

Mr. Jacoway: Mr. Chairman, I want to say that I did not mean to reflect on the witness in any way. I am simply trying to get his position.

Mr. Aswell. Mr. Chairman, nobody has reflected on the doctor's honesty of purpose or anything of that sort.

Mr. McLaughlin of Michigan: This compound has a food value, but it is clear enough that it has not the food value of whole milk. If one buys it and uses it thinking he is getting the value that is in whole milk, he is deceived, and if he uses it to the exclusion of whole milk, it may be harmful and detrimental, because the human system needs what is in the whole milk. Now, it is framed on the point of those who favor this bill that this thing is put out, advertised, sold, and used, in such a way as to misrepresent its food value, and that the people are buying it and using it believing that they are getting the full food value that they would get if they used whole milk; but there is nothing detrimental in it, and the doctor went on to say that there was nothing detrimental in it if the rest of the ration which a human being takes in connection with this product supplies the food value necessary for proper nutrition. Therefore, he says that this may be detrimental under some circumstances and not under others. That is what I understand him to mean, if they rely entirely on this product and do not take into their system other things of food value, such as you find in whole milk, they are injured. They are deceived, and that diet alone, not supplemented by other food containing vitamines, is in the end detrimental.

Mr. Clarke: Doctor, do I understand that you are conducting experiments all the time in your department toward

enlarging the field for the utilization of the by-products of milk?

Dr. Langworthy: We have studied the household by-products of milk like whey and skim milk and their use. We have never been authorized specifically to study the commercial products which come on the market. Their name is legion. We have had to confine ourselves to the household products.

Mr. Clarke: In other words, then, as far as your department is concerned, its power is limited to going into and examining and reporting on the utilization of these by-products of milk?

Dr. Langworthy: We are not authorized to do analytical work or chemical work of that sort. The vitamines studies in the department have been made in the Bureau of Chemistry by Dr. Johns. We try to find ways in which the housekeeper can make an economical use of her milk or of her skimmed milk or of the butter or the fat which she gets and uses in her dietary; how she may combine vegetables and fruits, eggs, milk, meat, the sugars and the sweets, like honey and the fat foods, into a dietary which is rational and reasonable.

Mr. Aswell: Is Dr. Johns in the city?

Dr. Langworthy: No, sir; Dr. Johns has left the Department of Agriculture and has gone to some private laboratory in New Jersey. The vitamines which he worked with chiefly were those of the peanut and of the cowpea, and he has shown that those substances, as I recall, do contain vitamines, and that they certainly do contain what we call complete proteins. This whole subject of the intimate chemistry of foods is an extremely complicated matter, and the generalization we have reached is that a person should take pains to secure in their daily diet a reasonable amount of, and pay attention to, the green vegetables and fruits, particularly the green vegetables that they use, which are the sources of fruit protein and to milk, eggs, and the leguminous vegetables, poultry, fish, and meat, and that they use *of* the cereal foods the rice and the wheat and the corn and others, remembering that the whole grain products contain more of certain nutritive elments, like mineral elements and vitamines, than the more refined products; and that they should place reliance upon sugar because it is an energy-building food of great value; and that they should also use

fats, realizing that cream and butter fats are superior to other fats we know of, because of their high vitamine content. We try to make the diet contain those things, and we have some charts which show the quantitative relations between them. You can not go into any family or into any public institution and prescribe a diet like a physician prescribes medicines. You can make suggestions that will enable them to use their local supply intelligently, in accordance with the skill of the cook and other conditions which they have to meet. If we tried to prescribe a diet, as we are sometimes asked to do, we would fail, because we could not know the skill of the cook or the amount raised on the farm, or other matters of that kind; but we can make general suggestions which will enable a person to select their food wisely, and we have made those suggestions, and the material is on the press and will be ready for distribution, I hope, some time in the near future. I am not trying to avoid answering questions at all, as you know, but am just trying to be as exact as I know how. I want to thank Mr. McLaughlin for summing up what I said because that is exactly what I meant.

Mr. Kincheloe: I am frank to say that he gave me more information in the few minutes that he spoke than I gleaned from your entire testimony. What you were saying just now is very interesting, but it does not bear on this bill. What I want to find out is who in the Department of Agriculture looks after the enforcement of the pure food act.

[fol. 403] Dr. Langworthy: The Bureau of Chemistry.

Mr. Kincheloe: That is what I thought and that is the reason why I was very anxious to have the chief of the bureau down here, because I thought, or at least I imagined, that the Chief of the Bureau of Chemistry in the Agricultural Department was absolutely familiar with every character of food on the market. In other words, I thought, for instance, that these Hebe people before they put that on the market submitted it to the Bureau of Chemistry of the Department of Agriculture in order that they might know that they had a product that was not violating the law.

Dr. Langworthy: I could not know about that.

Mr. Kincheloe: I am not talking about you, but the Bureau of Chemistry. That is the reason I wanted them to appear here. Is there anybody in the Department of Agriculture who ever made an analysis of this stuff to see whether it is deleterious to human health or not?

Dr. Langworthy: I could not say, because I do not know. Dr. Alsberg, as you perhaps recall, has recently resigned from the Bureau of Chemistry to go to California as one of three men—Dr. Taylor is another, and I have forgotten the name of the third man—who are to study at Leland Stanford University under what is called the Hoover fund the world situation as regards food; that is, how the world can produce most intelligently the food supply which the world needs.

Mr. Aswell: That is the committee that I suggested this bill be sent to.

Dr. Langworthy: It has not been organized yet.

Mr. Aswell: But it will be.

Dr. Langworthy: Yes.

Mr. Kincheloe: Doctor, do you suppose there is anybody left in the Bureau of Chemistry who has made any analysis of this stuff?

Dr. Langworthy: I do not know, sir, what is the situation in the Bureau of Chemistry, because, while I come in contact with them a good deal, I do not come in contact with them about the details of their work.

Mr. Kincheloe: That is the gentleman whom I wanted to testify. I wanted some one who had made a chemical analysis of this stuff and knew the contents of it and knew whether it was deleterious or not.

Mr. Aswell: Evidently there is not one there, because the department sent word that Dr. Langworthy probably knew more about this matter than anyone else there.

Mr. Jones: Doctor, I would like to ask you this question, if your investigations have enabled you to answer it. Does the preparing and selling of these substitutes, generally speaking, tend to decrease the use of the original article or does it simply broaden the field for the sale of the article.

Dr. Langworthy: I do not see how anyone could answer that without knowing what the sales were and what they are now, and that I do not know.

Mr. Jones: I was wondering whether you had made any investigation along that line.

Dr. Langworthy: I have never seen any such statistics, and it would not be within my province to make such an investigation.

Mr. Jones: You have not made any investigation along that line?

Dr. Langworthy: No, sir. The Bureau of Markets, I suppose, has the statistics on such matters.

Mr. Aswell: It was testified yesterday, that this product had made a market for 200,000,000 pounds of skimmed milk last year.

Mr. Jones: And I wondered if the use of whole milk had decreased. You do not know anything about that?

Dr. Langworthy: I do not know about those statistics. I suppose that the annual consumption is known and must be known in the department, but the collection of such statistics is not assigned to my department.

Mr. Jones: Is there any real, appreciable food value in coconut oil?

Mr. Aswell: Any vitamines?

Dr. Langworthy: To my knowledge there are no vitamines in it, but it is a source of fat which has always been used in the Tropics, where it grows, I suppose. The native population of the tropical islands have always used coconut and coconut fat.

Mr. Jones: A person could live a long time on whole milk without anything else to eat, could he not?

Dr. Langworthy: Yes; they could live a long time on whole milk. They could not live on it indefinitely, I suppose, because milk has not a high iron content and we need more iron than milk contains.

Mr. Jones: But they could live on it for months?

Dr. Langworthy: They do live on it for months in the treatment of typhoid fever and ulcer of the stomach.

Mr. Jones: Could a person live for weeks or months on coconut oil and nothing else to eat?

Mr. Aswell: They do in the Tropics.

Dr. Langworthy: I do not think they could. In the Tropics they use the whole coconut and use also the oil of the coconut. They certainly use it for anointing persons, for anointing the hair and the body, and I suppose they use it also in cookery.

Mr. Jones: Could they live for any extended period of time on one of these substitute products, as they are sometimes termed; that is, filled milk or skimmed milk filled with coconut oil?

Dr. Langworthy: They could certainly live for a time on it. What time that would be I do not know. Dr. McCollum, I suppose, is the person best qualified to answer that, because he has made laboratory experiments under similar

conditions. I could not predict how long it would be. Of course the Eskimo get their vitamine supply from the organs of animals and probably from the blood. They are a people who live on a strictly animal diet. I have understood that the Eskimo children in the hot summer months would occasionally play with a handful of berries and would not eat one of them. They never knew what they were. The American Indian, of course, ate large amounts of meat, but they also ate all the vegetable foods which they found wholesome. They probably had tried out everything and by trial had found out those that were wholesome.

Mr. Jacoway: But the American Indian mixed corn with his food supply.

Dr. Langworthy: The fact that corn, which was a tropical plant to start with, has been cultivated so far north can be attributed to the Indians. They also refined sugar from maple sap, and also extracted oil from nuts and from animal fats and kept it for winter use. They present a remark-[fol. 404] able state of food knowledge in a people entirely remote from civilization.

The Chairman: Are you through, Doctor?

Dr. Langworthy: I have nothing further to say unless there are some further questions.

The Chairman: What is the pleasure of the committee? Shall we ask the department to send any more people here?

Mr. Kincheloe: So far as I am concerned, if there is nobody in the department who has made a chemical analysis of this stuff, they can not give me any information. I want to know about this stuff, and I was under the impression, as I said before, that when any substitute for food or when any character of food that there was any doubt about went on the market I imagine the people who put it on the market submitted it to the Bureau of Chemistry to find out whether in their judgment there was anything deleterious about it, in order to avoid a prosecution under the pure food act, and I thought there was somebody in the Department of Agriculture who had made an analysis of Hebe and all this stuff, and that is the man I wanted here to testify.

The Chairman: The office extended the invitation as made by the committee. If there are no further requests to be made on the department, you may proceed, Mr. Balderston.

Mr. Voigt: Mr. Chairman, owing to the limited amount of time and the fact that there are four or five more people

to be heard, I am going to request that this witness be allowed to proceed for 10 minutes without interruption.

The Chairman: Without objection it will be so ordered.

Mr. Aswell: How much time does he want to speak?

Mr. Balderston: I would like to have more than 10 minutes before I get through.

Mr. Aswell: How much time do you want?

Mr. Balderston: I would like to have half an hour.

STATEMENT OF MR. ROBERT W. BALDERSTON, SECRETARY INTERSTATE MILK PRODUCERS ASSOCIATION, 721 HEED BUILDING, PHILADELPHIA, PA.

Mr. Balderston: Mr. Chairman, we have made a survey of the way these compounds are marketed in Pennsylvania and New Jersey, and we want time to develop them. There have been a great many remarks made here and references made to the marketing methods of the retailers and yet there has been no direct testimony.

Mr. McLaughlin of Michigan: On which side do you appear?

Mr. Balderston: I am with the proponents of the bill.

Mr. Aswell: Mr. Chairman, can we not agree upon some time because we can not stay here all day.

Mr. Balderston: I have been down here several days waiting for a chance to be heard.

Mr. Aswell: And we have been meeting here several days, too.

Mr. Voigt: Mr. Balderston, suppose you proceed without interruption and be as rapid as you can.

Mr. McLaughlin of Michigan: I would like to have in the record just who this gentleman is and what he represents.

Mr. Balderston: My name is Robert W. Balderston. I am secretary of the Interstate Milk Producers Association. This is an association of milk-producing farmers located in Pennsylvania, New Jersey, Delaware, and Maryland, and roughly speaking, supplying the milk to the dealers in the cities of Philadelphia and Harrisburg, and other cities in that district. I am and have been all my life a farmer, and am managing a dairy farm in Chester County, Pa. So that I am speaking as a farmer for the farmer.

Mr. Clarke: Is that your farm that you are managing?

Mr Balderston: The farm belongs to the estate of my father, who is deceased, and I have been managing it for the last 20 years.

We have 15,000 members in our organization; 15,000 farmers, and I am speaking for them. At the direction of our association, I had made by Mr. A. A. Miller, and under his care, a survey of the methods under which these compounds are marketed. This was made to use in the legislative halls at Harrisburg and at Trenton, and was put in the record at both those points when we had the legislation up before those legislatures.

We found, first, that while Hebe and one or two other companies are becoming more and more careful and more and more circumspect in their rules and regulations governing their labeling and their instructions to wholesalers—and you noticed the other day they said they were going to take off the label the recommendation even for coffee—we found there were other companies that were not so circumspect and were not so careful and were far more bold in their efforts to get their products before the public as a substitute for a full milk product. I have here two cans both made by the same people, although under different organization names. The same men are at the head of both companies. One is the Golden Key Evaporated Sterilized Milk made by the Valencia Evaporated Milk Co., of Madison, Wis.

Mr. Aswell: What is this?

Mr. Balderston: There is quite a variety on there. Do you want me to read all the label?

Mr. Aswell: Yes.

Mr. Balderston (reading): "The whole world has demanded pure milk. Fills a long-felt want," etc.

I hold in my left hand a can of compound of the same size, the same shape, with the same shaped key on it, but called Silver Key Brand, a compound of evaporated skimmed milk and vegetable fat, Interstate Milk Products Co., Madison, Wis., and looking them up through the mercantile agency we find that the same men head both companies.

Mr. McLaughlin of Michigan: Do I understand that the can in your right hand contains the whole milk?

Mr. Balderston: The whole milk.

Mr. McLaughlin of Michigan: And the other is skimmed milk with vegetable fat?

Mr. Balderston: Yes.

Mr. Aswell: And so stated on the can.

Mr. Balderston: This can of Silver Key was bought in Philadelphia when request was made for evaporated milk. It was sold at exactly the same price as Golden Key milk by the retailer.

[fol. 405] Mr. Clarke: Just what have your own States of Pennsylvania and Maryland and New Jersey done in the way of legislating on this matter?

Mr. Balderston: Do you want me to go into that now, Mr. Congressman, or shall I proceed without interruption?

The Chairman: The request was that you proceed for 10 minutes without interruption. You may proceed, Mr. Balderston.

Mr. Balderston: I want to impress upon you that if this were another product entirely, and one that was not to be sold to take the place of evaporated milk, you would think there would not be an effort to put it out in the same shaped can. I want to show you a can of straight milk called Mansfield Evaporated Milk, and here is a can of En-Zo, which is a compound. You see they are of the same color, the same type can, and the same shape can.

Mr. Aswell: Are they made by the same company?

Mr. Balderston: No; they are not made by the same company, but the people who make it put it out in the same shape can and with the same kind of label as the people who put out the regular milk.

The next thing I want to bring to your attention as a result of our survey is the fact that the bulk of these sales are in the poor parts of the city, and also in the poorer parts of Pennsylvania, such as in the coal region.

Mr. McLaughlin of Michigan: That is, the sale of the compounds?

Mr. Balderston: Yes. In the better class residential sections we found very little compounds sold, but when you get into the poorer sections, where there is a question of saving a penny, there they will go for the cheaper milk, and I am perfectly free to admit that in many cases this is a cheap product; but our investigators, in going to those stores uniformly and almost without exception, bought it when they asked for a cheap brand of evaporated milk. In the mining region, the anthracite region, we found that

the price was in most cases the same as for evaporated milk. In other regions you have the little hamlets in among the mines where there was not much competition, and the storekeepers took advantage of that fact to charge the same for a product which they bought at $3.60, according to Mr. McKee, as they did for a product which they paid $5 or $6 for.

In the Pittsburgh district we found a very similar situation. They were charging out there considerably more for the milk than they did in Philadelphia, although it was nearer the region where most of this milk is made, because in the Pittsburgh region evaporated milk is higher, this product following along, in most cases, 1 or 2 cents below the price of evaporated milk and in some cases 3 cents.

We found in Perth Amboy, N. J., they were making a distinct drive with this material. One of the big stores, like the Woolworth, that made specialties of certain things, had a big drive on with three cans selling for a quarter.

Mr. McLaughlin of Michigan: Let me make a suggestion to you. You are using two cans before you, one of the milk and one of the compound, and when you speak of one, I wish you would call it milk, and when you speak of the other, I wish you would call it the compound.

Mr. Balderston: I am speaking now of the compound. They made a special drive on the compound and sold three cans for a quarter. I found that in a good many others cases where a big storekeeper like a chain storekeeper wanted to make a specialty to attract customers to his store, he put this out in great quantities at three cans for a quarter.

Mr. Sinclair: Did he always sell it as evaporated milk or as compound?

Mr. Balderston: I will come to that just a little bit later.

In advertising these special drives in the newspapers in Pittsburgh, we have this kind of an advertisement: Carolene milk, three large cans for 23 cents; Carolene milk, five tall cans for 49 cents. These are the Pittsburgh prices on Carolene milk. In Perth Amboy on March 18, 1921, evaporated milk, three cans for 25 cents. When we went in and asked for the same, we received En-Zo; not milk but the compound.

Mr. Voigt: That was a case where it was sold as evaporated milk?

Mr. Balderston: Yes.

Mr. Tincher: You are talking now about these advertisements and prices and all that. That was the retailer, was it not?

Mr. Balderston: Yes, sir; that was the retailer who sold the milk to the consumers. I am trying to make the point, Mr. Congressman, that in spite of all that certain companies can do, they must admit, and we have conclusive evidence here before us—and the consumer does not buy from the manufacturer but buys from the retailer——

Mr. Aswell (interposing:) Does not that same principle hold good as to all sales?

Mr. Balderston: Perhaps so, but we want to remove the opportunities we can in this country for that kind of thing.

Mr. Kincheloe: There was profiteering in shoes and clothing in this country, too. Do you want to stop the making of those goods simply because the retailer does that?

Mr. Balderston: If they sold you a pair of shoes with a substitute material for leather——

Mr. Kincheloe (interposing:) Do you want to put that substitute manufacturer out of business?

Mr. Balderston: If there is no other way of preventing it.

Mr. Aswell: Would you want Congress to do it?

Mr. Balderston: We are here asking Congress——

Mr. Aswell (interposing:) Would you recommend that Congress put such faulty shoes out of business? Just answer the question yes or no. Would you recommend that Congress take action in the case which you just presented?

Mr. Balderston: Take action in the case of shoes made of substitute materials, certainly.

Mr. Aswell: And cigars and everything else?

Mr. Clague: I would suggest that the witness go ahead.

Mr. Voigt: I have asked, Mr. Chairman, that this gentleman be allowed to proceed.

The Chairman: Mr. Balderston has had his 10 minutes.

Mr. Aswell: He has had over 10 minutes.

Mr. Balderston: It has been said here that the people who make these products take all precaution that it shall not be sold for infant feeding. In our survey in the Pittsburgh district, in the town of Canonsburg, we found a storekeeper recommending it highly as a food for infants, and he turned to a woman who came into the store and

[fol. 406] said to her, in trying to make the sale: "Do you not find this product is good for infants?" and she said that she was using it. She was a foreign woman who came into the store while our investigator was making some inquiries as to whether they recommended it for infant feeding. Here are the kinds of statements that are made.

Mr. McLaughlin of Michigan: By whom?

Mr. Balderston: By the storekeepers in recommending it: "It takes the place of condensed milk." "Just as good as condensed and much cheaper."

Mr. Aswell: Who said that?

Mr. Balderston: The storekeeper.

Mr. Aswell: What is his name?

Mr. Balderston: I have back in my office the names of the storekeepers.

Mr. Aswell: Just stating that it was the storekeeper is not evidence. Give the name of the man who said that.

Mr. Balderston: Mr. Chairman, with your permission I will forward that and have it put in the record.

Mr. Aswell: In each case?

Mr. Balderston: In each case.

Mr. McLaughlin of Michigan: Give what information you have, and if these gentlemen want more you will furnish what you can.

Mr. Balderston: I have all that information in my office and will send it to you. "Takes the place of condensed milk." "Nothing better on the market." "Takes the place of condensed." One clerk said nothing more than that it was milk. At another place we asked for a 10-cent can of milk and were given Hebe. At another place we asked, "What is your cheapest condensed milk?" and were given Hebe, at 12 cents, and it was explained as being better than condensed milk in that case.

Mr. Aswell: Did they know who you were?

Mr. Balderston: I did not go personally. I had a woman to make this survey.

Mr. Aswell: And they did not know whom she represented?

Mr. Balderston: She did not make any representation as to who she was that I know of. She went in and asked for milk the same as any other customer would.

I want to bring out further the fact that while it may be that this is not used as infant food to the extent that it is used by adults and by older children, the fact re-

mains that the ideal food for an infant is the mother's milk and even cow's milk is a substitute, and we always recommend for infant feeding up to the time the child is weaned that they use as far as possible the human milk, but from the time the child is 2 years old until it is grown is the critical period, when the child is taking its diet from the table, and it is during this period that we contend that the greatest danger comes to the health of the Nation.

Mr. McLaughlin of Michigan: Between what ages?

Mr. Balderston: After the child is weaned and up until it is grown. It is during this period that the housewife uses this milk at home and uses it in place of the legitimate whole-milk product. Now, there are a number of other ways in which the public is being imposed upon. At the present time in the State of New Jersey there is a company making a product called Cream Mix. This product is cream from which one-half of the butter fat, approximately, has been removed, and vegetable oil substituted. This is being widely sold as table cream and as a product from which to make ice cream. In the city of Pittsburgh during the past few months there has been a company formed called the Mommas Food Products Co., whose avowed purpose is to make artificial cream, calling it Kream, and recommending the purchase of the stock because of the tremendous profit to be made by selling this substitute in the markets of Pennsylvania.

Mr. McLaughlin of Michigan: Do you know how that is made?

Mr. Balderston: They state that Mommas Kream is made by machinery out of milk, either fresh or butter, either whole or skimmed, and coco-butter, which is an oily or fatty substance extracted from the meat of coconuts. "We can wholesale our Kream for 100 per cent less than cow's cream and still make a profit of over 100 per cent." I also want to refer to the fact——

Mr. Aswell (interposing:) If he sold it for 100 per cent less, he would not get anything for it, would he?

Mr. Balderston: I am only reading you what is in his prospectus. In Philadelphia there is a company which does a large business wholesaling to restaurants and they told us they had sold large quantities of this compound within the last two months. When a man goes into a restaurant and buys an oyster stew or coffee and cream or cereal and cream, he expects to buy the product which comes

from the cow, pure and unadulterated and there is no way in which, no matter how carefully you label it, the customer of a restaurant can make certain that he is buying that which he expects to buy and which he pays for when he buys the food which is placed before him on the table.

I was away for eight months from my work being released for child feeding work in Europe. In my surveys in the European cities we found that the children were in a very bad state due to rickets and tuberculosis, and all the doctors everywhere attributed it to the fact that the milk supply of those cities was about one-tenth of normal; that in every case we found that the children up to 2 years were fairly well nourished, if the mother had any food of any kind so that she could give milk or if she could get milk from the city; and the city, in every case, made first provision for the children up to 2 years of age who were not able to be fed. If the mother could breast feed the children, then the mother got a quart of milk a day. It was from the time the child was 2 years and upward that we found these horrible cases of malnutrition due to the fact that the milk supply was reduced, but this was not only because the quantity was down to one-tenth of its normal or prewar level, but also because I found, by making analyses in the cities where I was located, that the butter-fat content of the milk had been reduced by the farmers and the dealers, one or both, down to 1½ per cent butter fat.

Mr. McLaughlin of Michigan: You mean by analysis an investigation or a chemical analysis?

Mr. Balderston: A chemical analysis made by a local chemist for me and the local medical authorities attributed the condition of the children fully as much to the reduced quality of the milk and the fact that the butter fat had been removed as they did to the reduced quantity of the supply which was sent in by the farmers to that city.

[fol. 407] I wanted to make that point because it emphasizes what Dr. McCollum has said here before you, that these children need the whole milk product, and I want to emphasize that in connection with the fact that these compounds are sold as a substitute for the whole milk product. The storekeeper in every store we went into, and we went into hundreds of them——

Mr. McLaughlin of Michigan: In France?

Mr. Balderston: No; in Philadelphia. The storekeepers in every case except one had the compound on the same shelf with the whole milk product. There was only one storekeeper who kept it down under the counter and only handed it out when the investigator insisted on getting the compound. He would not give her the compound for whole milk. He was the only storekeeper we found who did not put it out right on the same shelf and sell it along with his whole milk product.

Mr. McLaughlin of Michigan: Dr. Langworthy says or intimates that this result does happen or may happen: That such vitamins or food values or whatever they may be called as are in the skimmed milk may be destroyed by some process in the manufacture of this compound. Have you made any analysis to determine what the effect of the process is on such vitamins and stuff of food value as remains in the skimmed milk?

Mr. Baldertson: Mr. Congressman, I do not qualify as an expert at all.

Mr. McLaughlin of Michigan: You spoke of others making analyses for you and I thought perhaps you had had one made for that purpose.

Mr. Balderston: The analyses we had made were of the chemical content of the supply of milk furnished these cities to know what was the butter fat content, and to know whether it was partly skimmed or not, and I brought the matter to your attention because the doctors attributed the poor condition of these children physically to the fact that the milk had been robbed of its butter fat. The children were being fed in those cities on fat of a substitute nature, such as oleomargarine and lard, instead of butter fat.

Mr. McLaughlin of Michigan: It appears that skimmed milk is used and that skimmed milk has some food value, and if you know anything about it, either from your own knowledge or from analyses that you have had made, I would like to know whether this process destroys or deteriorates the food value of the vitamins that are in the skimmed milk.

Mr. Balderston: I do not claim to know anything about the matter which you have taken up, Mr. Congressman. I do know this, that the use of skimmed milk by a household is not limited to the purchase of these compounds. You can buy skimmed milk powdered or in any other way

you wish and use it in cooking and you can buy all the vegetable oils you want as cooking oils or you can buy lard or, if you are able to do so, you can buy butter fat and put that in your cooking. There is no housewife that is compelled to go without the skimmed milk in her cooking because she does without the compound of skimmed milk and vegetable oil.

As I see it, viewed from our survey, the sale of these compounds on the same shelf with the pure milk product shows that every can of compound which is sold displaces one can of the whole milk product, and that the sale of these products is not for the purpose of finding a market for additional skimmed milk but finding a market for 7,000,000 pounds per year of coconut fat, to be sold in the place of 7,000,000 pounds of butter fat, and sold to consumers who think they are getting the whole milk product containing the butter fat. Everything which has been said about skimmed milk here on both sides is to the same effect and is not contradicted. I do not know whether I am answering your question or not.

Mr. McLaughlin of Michigan: So far as I am concerned, you have covered it in relation to the question of the methods pursued by the retailers and the food value of these compounds as compared with other whole milk products. If you have anything to say, I would be pleased to hear it about the economic effect; that is, the effect on the dairy industry, the milk producers, and so forth.

Mr. Balderston: Mr. Chairman, our association went into this matter with an open mind. We made this survey with an open mind, because we wanted to know for ourselves whether the manufacture and sale of these compounds would be advantageous or disadvantageous to the dairy industry as a whole. It is true that if a farmer were able to manufacture these compounds in a territory which had previously made nothing but butter, returning the skimmed milk to the farmer, he would be paid, if he lived in that territory, a slightly additional price for his milk, and that a few farmers would be benefited by having this additional price; but because every can of compound sold displaces a can of pure milk, his product would be displacing the product of some fellow farmer located around some plant manufacturing the legitimate pure milk product, and that therefore the sum total of advantage to the dairy industry would be nothing. Furthermore, you have this great dis-

advantage to the dairy industry in that the business in itself comes because of the great danger attending its sale and because the public can not be protected in using it—the sum total of disadvantage to the dairy industry would be very great, because it would bring discredit on the dairy industry as a whole, and I feel personally, and our whole association feels and has instructed me to say so, that we are unalterably opposed to the whole traffic in these compounds, because it does not furnish any additional market and the products themselves are such as to bring discredit on the whole dairy industry because of the way in which they are marketed and because the public is being imposed on and the health of the Nation impaired.

Mr. McLaughlin of Michigan: What is the effect on the creameries and what do you know about their attitude on this question?

Mr. Balderston: I do not think I can qualify as a witness for the manufactures of butter or of condensed milk or any other dairy product. The effect on the farmers would not be very much one way or the other, because it does not furnish any additional market for skimmed milk. It simply furnishes a market for skimmed milk to one bunch of farmers and removes it to another bunch of farmers who had previously marketed their skimmed milk through a condensory making the pure product.

Mr. McLaughlin of Michigan: I asked you first the effect on the dairy interests—that is, the producers of milk. There is no doubt but that a very large majority of the farmers are in favor of this bill and in favor of the prevention or the regulating of the making of the compound. It is said in answer to that, however, that the farmers [fol. 408] are misinformed and that the manufacture of this compound is really a benefit to them because it enlarges the market for their skimmed milk. You have said that in your judgment it does not enlarge the market and that it is really harmful to the farmers who produce milk. Now, as to the creamery people, I am trying to find out what the effect on them is and what their attitude is toward this measure. The creameries buy whole milk, separate the butter fat, and make butter. The manufacturers of these compounds buy whole milk, separate the butter fat, and make butter. In the sale of their butter they come in direct contact with the creameries. What effect do you think it has

on the creameries and do you know the attitude of the creameries toward this proposition?

Mr. Balderston: As I told you before, I am not in a position to speak for the creameries. We have very few creameries in the eastern part of the United States. The sum total effect on the sale of butter and cream, of course, is this: We have displaced in the last year, according to the figures given you, 7,000,000 pounds of butter fat by 7,000,000 pounds of coconut oil, and just to that extent is the market for butter fat in the form of butter or cream injured by the sale of these products. If the manufacture and sale of these products is to increase to the extent predicted by the gentleman yesterday, it will have a very marked effect on the market for butter-fat products, such as butter and cream.

Mr. McLaughlin of Michigan: But both of these industries, the creameries making butter from milk bought from the farmers and these industries making this product from whole milk, those two industries are directly in competition with each other and it is charged, I do not know whether it is true or not, and I am asking whether you know anything about it—it is charged that the real opposition to this compound industry and the real spirit back of this bill which prohibits the manufacture of that stuff comes from the creamery owners and operators. You say you do not know anything about that?

Mr. Balderston: Mr. Chairman, if I might give you just a little history of this movement, we held a meeting in Harrisburg last winter to go over this whole question and we formulated a bill which was presented to the legislature in Pennsylvania. At that meeting there were representatives of the various dairy interests of the State and a bill was also introduced in New Jersey.

Mr. McLaughlin of Michigan: And included in the dairy interests were the creameries represented?

Mr. Balderston: I was just going to say that we have very few creamery interests in the East because most of our milk must go into other channels. Wisconsin took its cue and framed its bill after the pattern of the Pennsylvania bill.

Mr. McLaughlin of Michigan: Then you are not able to say——

Mr. Balderston (interposing): So I am not interested in what happened in the West, and the movement first started

in the East, where the creamery interests are not largely represented. I can not tell you the attitude of the creamery interests, but I would say further that this is not a trade war. The farmers are very largely and very vitally interested in this question, and I speak for them and not for the creamery interests.

Mr. Voigt: Are you through, Mr. Balderston?

Mr. Balderston: I am entirely through.

Mr. Voigt: I will ask you to tabulate the information you have and put it in the record in connection with your remarks, so that we will have it in the hearing.

Mr. Balderston: I will send all of that information down here.

South Fourth Street, sells Hebe: Man selling said it was good milk. Woman vouched further information, saying "He does not know, he is just from Russia. It's (Hebe) as good as any other milk sold." In reply to the inquiry: Can it be given children? the woman replied, "Use it for anything."

South Fourth Street, sells Hebe and Silvery Key: Very good milk, only a litfle cheaper than others.

South Fourth Street, sells Hebe and Silvery Key: Hebe and Silvery Key as good as Borden's. Try it.

South Street, sells Hebe and Carolene: Had a great deal of Carolene milk. Said it was the best and used to be the highest-priced milk.

South Street, sells Hebe: Stated that it was a good cheap milk.

Mr. Voigt: And I wish you would also leave a few of those cans with the committee.

Mr. Balderston: You can have them all if you so desire.

Mr. Voigt: Mr. Chairman, I now want to read a short letter from Dr. Hart, of the University of Wisconsin. Dr. Hart is a recognized expert on this subject and is connected with the College of Agriculture of Wisconsin:

The University of Wisconsin,
College of Agriculture,
Madison, July 18, 1921.

Mr. A. M. Loomis, *National Dairy Union, 630 Louisiana Avenue NW., Washington, D. C.*

DEAR SIR:

Replying to your letter of July 16. I have already stated in hearings held before legislative committees in our own

State that at least 90 per cent of the fat soluble vitamine of whole milk is removed in the modern commercial skimming process. This statement is based upon recent experiments in our laboratory, where refinement of control has been perfected, as contrasted with the older experiments made by McCollum, which led him to state that there was still about 50 per cent of the fat soluble vitamine in skim milk. Consequently filled milk is not completely devoid of the fat soluble vitamine, but it does not begin to compare with whole milk in respect to its content of this nutritional factor.

Very respectfully, E. B. Hart.

Mr. McKee: Mr. Chairman, would I be at liberty to ask Mr. Balderston one question?

Mr. McLaughlin of Michigan. Yes.

Mr. McKee: At the time the bill was pending in Pennsylvania a survey was made by the visiting nurses of Philadelphia as to the use of compounds in Philadelphia, was it not?

Mr. Balderston: Yes; I understood that the visiting nurses of Philadelphia were asked as to their knowledge of the use of the compounds among infants.

Mr. McKee: And as a result of that survey they found these compounds were not being used and had not been used as an infant food; is that correct?

Mr. Balderston: The Visiting Nurses' Association of Philadelphia asked their nurses whether to their knowledge it was being used as an infant food, and the nurses replied that they did not know that it was being used. That is different from saying that they made a survey and found it was not used.

[fol. 409] Mr. McKee: Mr. Chairman, may I, then, read this letter into the record?

April 1, 1921.

N. W. Ayer & Son,
300 Chestnut Street, Philadelphia

Gentlemen: About three weeks ago the staff of the Visiting Nurse Society were asked to find out in the homes they visited within the next two or three days whether or not

Hebe was being used—if so, for what purpose, and especially if in any case it was being used for infant feeding.

In one district, Kensington, it was found that Hebe was being used for the table—that is, for cooking and for coffee—but in no case was it being used for infant feeding.

Very sincerely, yours, Elizabeth Scarborough, Assistant Superintendent.

Mr. Voigt: I desire to read a letter from Prof. H. C. Sherman, of Columbia University. A statement was put into the record a day or two ago which was made the basis of the claim here that Prof. Sherman had stated that the skim milk contains 50 per cent of vitamines. I wrote Prof. Sherman and I gave him a copy of the statement which had been put into the record, and he replies as follows:

Columbia University in the City of New York,
Department of Chemistry,
July 18, 1921.

Hon. Edward Voigt,
181 House Office Building, Washington, D. C.

Dear Sir: I have your letter of the 16th, and note your question whether the statement which you quote from Dr. Mendel as taken from a paper from this laboratory (the marked portion of the inclosure) is based up Dr. McCollum's statement or upon investigation made by me.

In reply I would say that it is based partly upon Dr. McCollum's statement and partly upon experiments in this laboratory, which are, however, not yet complete, so that I can hardly give you any more information than appears in the quotation. My statement was intended to confirm that of Dr. McCollum in a general way, but I could not attempt to state precisely the relative amounts of vitamin A in whole and skimmed milks.

Very sincerely, yours H. C. Sherman.

(Statement referred to in above letter is as follows:)

Extracts from Letter of Dr. L. B. Mendel to Congressman Clarke.

* * * Every physiologist admits that growing children should have some source of vitamine A; how much is needed

is not definitely known. For infants, the preferable supply admittedly is whole milk. However, McCollum is authority for the statement that approximately half of the vitamine A is present in the nonfat part of the milk—that is, in skim milk—and another competent scientific investigator, Prof. Sherman, of Columbia, has announced that skimmed milk furnishes important amounts of vitamine A.

* * * Skimmed milk is not a rank poison. It is merely not a complete food for the infant; neither is barley water nor prepared foods.

* * * The House bill represents a fight between industrial "interests," and I am confident that the medical profession would not admit that any wholesome food is a menace. Life and health are not endangered; on the contrary, I have long believed that our national nutrition would be benefited if instead of discarding the milk separated from cream in the butter industry—instead of converting a unique food into rough paint, etc.—we encouraged the greater use of the nonfat part of the milk in the kitchen in the preparation of food.

Extracts from Evidence Submitted to Show Presence of Vitamine A in Skimmed Milk

Recent experiments lead us to believe that approximately half of the fat soluble dietary essential is present in the fat and half in the nonfat portion of the milk. It is therefore thirty times as soluble in butter fat as in water. (E. V. McCollum, Jour. Am. Med. Assoc., May 12, 1917, 68, 1379.)

According to our experience, "skimmed milk contains a very significant amount of fat soluble vitamine, probably about half as much as whole milk," as McCollum's brief statement would imply. Experimental affairs show that skimmed milk has value in sustaining rats that are deprived of other vitamine A sources. (H. C. Sherman, F. L. McLeod, and M. N. Kramer, Proc. Soc. Exper. Biol. and Med. 1920, 18, 41.)

All the fat soluble A content of milk is not present in the fat (see McCollum, 1917), but no accurate data are at present available from which it is possible to make any trustworthy calculation of the amount of this factor present in the quantity of separated milk (250-350 c. c.) given in the foregoing diet. (Helen M. Mackey, Biochem. Jour., 1921, 15, 19.)

He states now that he is unable to state. Prof. Erf, will come forward, please?

Mr. McLaughlin of Nebraska: State to the reporter whom you are and what you represent.

Statement of Mr. O. Erf, of Columbus, Ohio

Mr. Erf: I hold the chair of dairying at Ohio State University. I am secretary of the Ohio Dairymen's Association and their feeding adviser, also of the Ohio Jersey Cattle Clubs, the Ohio Holstein Breeding Association, and the Ohio Guernsey Association.

I hardly know how to approach this situation, because we have for the last five or six or seven years prohibited the use of Hebe and any mixed-milk compounds.

Mr. McLaughlin of Nebraska: You have prohibited it by law in the State of Ohio?

Mr. Clarke: When was that law passed?

Mr. Erf: That law was passed some 30 years ago.

Mr. Clarke: So it is not aimed at these products originally?

Mr. McLaughlin of Nebraska: It appeared from the testimony of another witness that in the effort to prohibit the use of these compounds they invoked the old law, which was not passed for the purpose of prohibiting these, but it was found by trial in the courts that it was broad enough to prohibit or regulate it; but it was not by virtue of a new law.

Mr. Erf: Yes, sir. It was, however, introduced, and I want to say that I was in that committee when that law was framed, and that they had in mind just such things when they framed this law.

Mr. McLaughlin of Nebraska: You mean 30 years ago?

Mr. Erf: Yes, sir. I might make this statement, that the mixture of fats and milk has been in operation a long while. I have mixed skimmed milk with oils 28 years now for calf-feeding purposes, so it is nothing new. I want you to know that. But the thing that interested me first was in 1908, when a lady brought a can of material something like this [indicating], and said, "I have been feeding this to my babe, and it became ill. What do you suppose is in it?"

Mr. McLaughlin of Nebraska: What was it; what was it sold as?

Mr. Erf: It was sold as milk, sold as condensed milk.

Mr. Clarke: What was the can?

[fol. 410] Mr. McLaughlin of Nebraska: It was a compound.

Mr. Clarke: It was a compound, analyzed: coconut oil and lard and skimmed milk. We later found the farmer that was mixing lard with milk, and this woman protested because the flavor was not good and asked us to investigate the situation. I am just bringing these matters up to show you that this has been going on for some time. We had this under consideration with the dairy and food department, and the dairy and food department considered it an adulteration.

Mr. McLaughlin of Nebraska: The Federal food department?

Mr. Erf: No, sir; the State.

Mr. McLaughlin of Nebraska: The State dairy and food department?

Mr. Erf: Yes, sir. Later on, in Cincinnati, there developed this product known as Hebe. I forget just exactly when it came out. I think it was along about in 1910, 1911, or somewhere around in there. At first they had the word milk on and it was called Hebe milk. We brought that before the dairy and food commissioner, and he ruled that that was not a proper thing to do and they had to change the label. However, there came that question of whether a man can introduce lard, for instance, into skimmed milk, and at that particular time we had a man that was introducing lard or homogenizing lard with skimmed milk, in Lima, and making ice cream out of it. This particular product was not sold under the same condition. This fellow did not call his product anything. It was a mixture of lard and skimmed milk and did not have a very good flavor, however. The lard flavor was apparently perceptible in the ice cream. We just battled with the situation a little bit. We did not just know how serious this was going to be, but gradually this product kept creeping upon the market and was being sold more and more, especially this one here, Hebe, because it tasted and smelt like condensed milk and had the same specific gravity, density, as skimmed milk or condensed milk. The thing became quite serious, however, when Maj. Hamilton, at Camp Willis, called us up one morning and asked us whether we had read the maintenance regulations of the Army and we told him we had. He asked us to come down to interpret these regulations.

We could not interpret them any other way except that they provided for condensed milk, pure, unadulterated milk, just as it was produced from the cow with the water removed. He said, "I would like to have you taste a cup of coffee." Now, understand, all during these years we had been making some experiments. We had been feeding white mice to find out what effect this product had. It was carried on under Dr. Lyman's instruction; in fact, Dr. Lyman did our work, and later on we employed Dr. McCollom to do some of this work, and also Dr. Black. We had some very good results by that time, and we had been investigating this material and I recognized a flavor in this coffee something like Hebe. I said, "Are you using condensed milk?" He said, "I think we are, but we will show you the can." And he brought out this particular can, with probably the identical label, as near as I can see.

Mr. McLaughlin of Nebraska: A can of Hebe.

Mr. Erf: That was Hebe.

Mr. Voigt: When and where was this?

Mr. Erf: It came just at the Mexican outbreak, in 1913, I think it was; Columbus, Ohio, and Maj. Hamilton was the man that asked me to come over there.

Mr. Voigt: Did you investigate as to the quantify of this Hebe they had on hand?

Mr. Erf: Yes, sir. I might continue. He said: "Why, we are supposed to have condensed milk, are we not"? I said, "If your maintenance regulations are of any value I presume that is what you ought to have, but I will tell you that you are not getting condensed milk; you are getting a compound, and a compound that is decidedly inferior, and we will take you up to our laboratory and show you." We had just finished or just at the close and we had a number of experimental cages of white mice. As near as I can recall, those that were fed on Hebe weighed about 45 grammes and those that were fed on milk weighed 182, I think.

Mr. Clarke: Is that condensed milk?

Mr. Erf: Condensed milk.

Mr. Voigt: All at the same age?

Mr. Erf: Yes; started out the same way. Now, Maj. Hamilton, or Dr. Hamilton—he is a physician and had charge of the medical work of the camp—immediately started over toward Col. Barger's tent and stated the case

to him. He said: "We are feeding the soldiers a fraudulent food product." Col. Barger immediately asked—I forgot the man's name, the mess sergeant—how much of this stuff he had on hand. He said: "We just got in about two carloads of this stuff." The colonel said: "Why was this particular product brought upon the camp grounds here? Why did we use it? Why didn't we get condensed milk?" He said: "We were informed that this was better than milk, and since the particular company or grocery firm that supplied the milk did not have a sufficient amount of condensed milk on hand they informed us that they had something better than condensed milk and they brought us this material." I immediately went to work and asked the Nestle's Food Co., the Marysville Condensed Milk Co., who were furnishing this particular company, a grocery firm, with condensed milk, and they informed me that they had a carload of condensed milk on their floor and that they had 10 carloads ready to ship any moment. He said: "It is probably due to the fact that the difference is $1.30 in a case that that product was taken over to the camp."

We immediately proceeded under this old law to get further evidence to see whether we could not stop the wholesale violation. We went to several grocery firms and asked for condensed milk and we usually got Hebe. I have particular reference to the so-called Ohio Grocery Co. at that time, which had a chain of stores and were handling this particular product. We also authorized the dairy and food department to have them go out and get samples, and they brought in a great many samples. We brought this before the courts and it was ruled that it was a fraud. In fact, I have the decision right here, if you will allow me to read it.

Mr. Voigt: Is that the decision of the supreme court?

Mr. Erf: That is the district court.

Mr. Voigt: Will you please hand that to the reporter? We will not have time to have it read. I think the members are fairly familiar with it.

[fol. 411] Mr. Erf: This case I have reference to was tried before Judges Sater, Warrington, and Hollister. It was Hebe and contended to be wholesome and nutritious, but was considered a fraud and the court so ruled. It was then carried from the district court to the United States Supreme Court.

Mr. Voigt: We are familiar with that.

Mr. Erf: Yes, sir.

Mr. Voigt: Have you considered the production of this compound as beneficial to the people of the United States?

Mr. Erf: Positively not.

Mr. Voigt: Do you consider that it is a benefit in any way to the dairying industry?

Mr. Erf: No, sir; it can not be. If there are no further questions, I think that is about all.

Mr. McKee. Mr. Erf, at the time that this product was delivered to the camp were you familiar with the way in which it was packed. I mean, was the notice included in each shipment?

Mr. Erf: It was packed in pasteboard cases in these cans, something like this can [indicating].

Mr. McKee: Do you know that a notice of this kind was contained in the top of each case?

Mr. Erf: No; not at that time.

Mr. McKee: That was the fact, was it not?

Mr. Erf: No. We opened some of them and it was not in there, not at that particular time. Later on we found such statements and also we found such statements as that it should not be used for infant purposes. But in those earlier days it was sold for milk.

Mr. McKee: With regard to the product that you mentioned in 1908 as being used by a mother who bought a can of milk for feeding, do you want to make it understood that it was contained in an hermetically sealed can and not a label at that time?

Mr. Erf: No; it was in a bottle, and it was Hebe.

Mr. McKee: No label on it?

Mr. Erf: Hebe came later.

(The decision above referred to is contained in the following letter:)

COLUMBUS, OHIO, *February 17, 1919.*

DAIRYMEN'S ASSOCIATION,
Columbus, Ohio.

GENTLEMEN:

I have just been advised by the Supreme Court that the mandate has been sent down in the case of the Hebe Co. et al. v. Shaw, etc., et al., in the Supreme Court of the United States, No. 664, and I deem it my duty, not only

to you as my client, but also to the interest of the public in general, to advise you of some of the points which were decided in this case and of some pertinent observations for the protection of the public against this imposition.

Section 12725 of the General Code of Ohio forbids the sale of condensed skimmed milk in Ohio. The language of the statute is as follows:

"Whoever manufactures, sells, exchanges, exposes or offers for sale or exchange, condensed milk unless it has been made from pure, clean, fresh, healthy, unadulterated and wholesome milk, from which the cream has not been removed and in which the proportion of milk solids shall be the equivalent of twelve per cent of milk solids in crude milk, twenty-five per cent of such solids being fat, and unless the package, can or vessel containing it is distinctly labeled, stamped or marked with its true name, brand, and by whom and under what name made, shall be fined not less than fifty dollars nor more than two hundred dollars, and, for each subsequent offense, shall be fined not less than one hundred dollars, nor more than five hundred dollars and imprisoned not less than ten days nor more than ninety days."

This case was tried in the district court of Ohio before three very strong judges, Messrs. Sater, Warrington, and Hollister. These judges decided that Hebe was condensed skimmed milk and therefore within the condemnation of the Ohio statute. Counsel for the Hebe Co. very wisely raised the constitutional question and claimed that their product was wholesome and nutritious. From the opinion of the court below I copy this language:

"Whether Hebe is as wholesome and nutritious as condensed milk is unimportant, so long as it is used as an instrument of fraud. Producers of an article of food which may be used to deceive the public are not favored in courts of equity."

Again, in the same opinion—

"The Constitution of the United States does not secure to anyone the privilege of manufacturing and selling an article offered in such manner as to induce purchasers to believe they are buying something which is in fact different from that which is offered for sale."

I have quoted these excerpts from the opinion of Judge Slater to show that our district court found not only that Hebe was condensed skimmed milk but that it was actually being used as an instrument of fraud and for the deception of the public.

Error was prosecuted to the Supreme Court of the United States and there little reliance was placed upon the constitutional question, but the main point was made upon the meaning or interpretation of the Ohio statute. In other words, does a composition of 94 per cent condensed skimmed milk and 6 per cent coconut oil come within the condemnation of the Ohio statute which forbids the sale of condensed skimmed milk?

The Supreme Court affirmed the decree of the lower court, and thereby declared that Hebe is condensed milk. In connection with the general question I was much amused to read, while I was in Washington waiting to argue the case, an elaborate advertisement of Hebe in the Saturday Evening Post. The ingenious advertiser who prepared the copy had gone a step further than anything I had ever seen. Knowing that the words "skimmed milk" are known to the buying public to a very great extent, this expression was dropped out of the advertisement altogether and the skimmed milk was described as "separated milk." While milk producers and experts know what separated milk is, not one of the buying public knows what it means where 500 know what skimmed milk is. This is simply in line with the finding of the district court that Hebe was being used as an instrument of fraud.

Now in this case the Hebe Co. tried to come within the doctrine of McDermott *v.* Wisconsin because the can bore a Federal label on which the composition or constituent elements of the food product were given. I have no quarrel with the Federal department of agricultural chemistry up to the time of the decision in the Hebe case, but it seems to me that that department should now revise its conclusions. I am advised that the Federal Department of Agriculture compels everyone who sells condensed skimmed milk to label in big letters across the face of the carton "Skimmed milk." The label which I saw on Hebe does not comply with such a requirement. I should think the Federal Bureau of Chemistry would be glad to be advised of the fact that the Supreme Court has officially declared Hebe to be condensed skimmed milk, because with that ruling in force,

it places the Department of Federal Agriculture in the position of discriminating between different vendors of skimmed milk; thus, as I understand the ruling, if I sell condensed skimmed milk, I have to put these words in large letters across the can, whereas Hebe which has been judicially defined to be condensed skimmed milk is not obliged to comply with that request.

I wish you would take this up with the Chief of the Bureau of Chemistry, because I have heard that they are very fair in their attitude toward all foods, anxious to do what is right; and the mere fact that they made a mistake in the past would not lead them to go in the face of a Supreme Court decision.

I congratulate you on having won this victory, and as is true in many other cases, the great buying public of Ohio, who are secured now from the deception which the court has judicially found, will never appreciate or even know what your association has done for them.

Statement of Mr. Walter Engels, Representative of the Borden Co.

Mr. Engels: I represent the Borden Co. Gale Borden was the originator of condensed milk, and the company that he founded or organized has been in the business for upward of 64 years. It has always stood for the highest ideals in the production and manufacture and care of milk; and among those ideals is the thought that the public should receive the butter fat in all milk products as the milk comes from the cow.

[fol. 412] The company to-day makes no milk product which does not contain the butter fat in its entirety and which goes to the consuming public. It does manufacture a dry skimmed milk which is sold in barrel to the confectionery and baking trade, but not to the public. Therefore, the company wishes to go on record before this committee as being in favor of legislation which will regulate or prohibit the sale of these milk compounds, based on the fact that it feels it will seriously affect the public health; secondly, because it is a fraud on the consuming public in the price it pays for this inferior product; third, because it has seriously affected the dairy industry, and because it is the most unfair kind of competition among the milk manufacturers.

Mr. Clarke: Have you any figures to show where this Hebe comes in contact with you, furnishing us the sales?

Mr. Engels: No; but I would be glad to furnish that to the committee. I do know that the department told me that in Indiana it had replaced evaporated or condensed milk 4 to 1.

Mr. Clague: I want to say here that yesterday afternoon I made a little trip down through the city, and went into four Sanitary grocery stores in this city and asked for Hebe. They said, "No, we don't have Hebe, but we have a product here that is equal to or better we will sell you." I then asked them, "Have you any condensed milk?" "Yes," they said, "we have Borden's condensed milk." They did not have the Carnation. I asked them, "What is your price on this?" They answered, "10 cents a can." I asked them, "What is your price on your Borden's?" They answered, "10 cents a can." I then asked them the question, "For house use, which is the better?" And they replied, "One is just as good as the other." That was in four different Sanitary grocery stores in this city yesterday afternoon, and all four of them told me that the substitute was just as good as the Borden's milk and all four of them handled the Borden's milk.

The Chairman: What is the difference in the wholesale price of the two?

Mr. McKee: The wholesale price of Carnation, Borden's, and I assume in all advertised brands, is $5 in carload lots, and Hebe is sold in carload lots at $3.60.

The Chairman: $1.40 difference?

Mr. Engels: Yes, sir. My understanding was that they were selling the Roger's milk at 10 cents at the Sanitary grocery.

Mr. Clague: None of them was handling Carnation. They showed me the Borden's milk at one place.

Mr. McKee: They were selling it below cost then.

Mr. Clague: I don't know anything about that.

Mr. McKee: They might have been making a drive in this city putting that out as a leader.

Mr. Clague: But they were selling it at the same price and said one was as good as the other.

Mr. Engels: I do not want to hit Mr. McKee below the belt, but I want to say that these are sold mostly on the Pacific coast. We don't find these milks sold as much on

the Pacific coast as we find it in the coal-mining districts and Perth Amboy, and in those districts where Carnation is——

Mr. McKee: I want to say that that is not a statement of fact. We have six condensers in Wisconsin and one in Illinois.

Mr. Engels: Isn't the bulk of the sales in the East?

Mr. McKee: No, sir. Fifty per cent of the production on the Pacific coast, I would say, is in the East. We have 10 condensers east of the Mississippi River.

Mr. Engels: I might also add, supplementing his remark, I was dictating a little to my stenographer yesterday afternoon. He had just gotten back from a visit to New Hampshire, and the people he visited up there were paying 17 cents a can for Carolene and thought it was a full evaporated milk, and they were amazed when they found out that it was not.

The Chairman: Were the people using this Carolene in place of evaporated milk?

Mr. Engels: Yes, sir; thinking they were using evaporated milk.

Mr. Clarke: The testimony of that doctor from Perth Amboy was that oftentimes the farmers employed down there used a good deal more discretion in anything they purchased for use in the home than the alleged civilized English-speaking people.

Mr. Engels: I think there is a good deal of truth in that. But, on the other hand, I opened up myself practically every one of these different brands of milk and set them side by side in different glasses, and I defy you to tell them apart. The texture is the same, the color is the same, the odor is the same, and the taste is practically the same. And it opens the door wide for fraud.

Mr. Voigt: Your company is one of the largest manufacturers of condensed milk?

Mr. Engels: It is. I guess it is the largest in the United States.

Mr. Clarke: I would like for you to be sure you get those figures.

Mr. Engels: I will do that. But that is my information that in sections where milk is sold we find these compounds being hard pressed.

Mr. Clarke: There is another question running around in my mind, and that is this, that here is this by-product of the cow that for a long time has not been utilized to practically any extent. Now, haven't these manufacturers of this compound opened up a little door for us fellows ourselves who are practical dairymen to go ahead through experimentation and demonstration and see if we can't increase the field for utilization, we will call it, of the by-products of the cow.

Mr. Engels: Well, sir, the legislatures and pure food officials have been fooling with that for years.

Mr. Clarke: It isn't the legislature, I think. It is our farmers' organizations and the Agricultural Department.

Mr. Engels: It wasn't a commercial intention to be dishonest. Skimmed milk is permitted to be sold in very few places as a bottle of skimmed milk, because, in spite of precaution you can throw around the sale, the temptation is too great.

Mr. Clarke: Well, our farmers were criticised for years the way potatoes were sold, and members of the Hood River Association demonstrated that through advertising they could make a market and get better prices for themselves through cooperative marketing.

Mr. Engels: Well, I could see this morning that the same questions are perplexing the committee or some members of it as the first hearing I attended. But the point seems to be this: Why have a bill prohibiting this outright? Is it proper morally or legally? The outright prohibition of a wholesome product is not new. Practically every State in [fol. 413] the United States has a standard of butter fat of 3 or more per cent. We will take 3 per cent: A man goes to a store and gets some milk and it tests 2½ per cent of butter fat. There certainly can't be any contention that milk is unwholesome or deleterious to the health any more than this milk is unwholesome. But the law steps in and says absolutely you shall not sell milk containing less than 3 per cent butter fat and therefore this bill which is before you does nothing but go a step farther than the existing standards. Therefore we have for the dairy milk standards to-day an absolute prohibition of a perfectly wholesome product if it does not come up to a certain specified standard of butter fat. Furthermore a good many criticisms have been made of this bill on the ground that it is di

rected—on the ground that "Why pick on the milk compound, so to say"? Why single this out? We have white flour which they say is not as nourishing. We have breakfast foods which Dr. McCollum criticizes. We have cigars which various people refer to; we have shoes which various people refer to. But, gentlemen, you do not feed any of those things to young infants. A young infant up to the age of about six months has for its full nourishment milk in one stage or another. Up to two to three years of age milk is the principal constituent of its diet. Therefore milk is of special importance. We have special regulations on milk governing its production from the cow to the consumer, even almost to the point of saying whether a farmer is to wear a red shirt or a blue shirt.

After I listened to Dr. McCollum the first day he was here I wondered just what effect the oleomargarine situation had on the health of our young men as shown during the draft. The country was alarmed and startled as to the condition of our young men, as to their physical condition when the draft came. While if we could go back a little bit we find that oleo was introduced in 1880, and its use has continued and the courts in their wisdom decided there was nothing poisonous about it; it might be sold if properly labeled. Nobody can tell what an important item in the ordinary meal butter is. Just what effect the deficiency of oleo has had upon the health of your young men? As far as fraud is concerned, that consists of two parts. First, the consumer is defrauded in the price he pays. When he pays 10 cents for a can of compound as against 10 cents for a can of full-cream milk he is being defrauded as to the compound. That has been argued time and again.

Mr. Rainey: What is the difference between the price of compound and milk?

Mr. Engels: I think $1.40, which amounts to about 3 cents a can. But more important than the price fraud is the fact that the consumer is misled into the belief that he is getting the genuine article and uses it for all purposes for which he would use the full-cream article. The Hebe Co. steps in and says they are doing everything they can to make the retailer sell this product legitimately; but in spite of all they have done and all they can do, these actual surveys that have been made in city after city show that the retail dealer will come into the temptation to make a little more money

and will misrepresent his produet, even represent that it is better than the full-cream article.

The Chairman: The product is susceptible to fraud?

Mr. Engels: Yes, sir. Where the temptation is so great and you can't control it, and the legislature steps in and says you can't sell it at all because it goes beyond control, and the public is open to too much fraud to permit the article to be sold.

Mr. Voigt: The other companies manufacturing this article besides the Hebe are not taking any steps to control the retailer in sales?

Mr. Engels: Yes, sir. That should be taken into consideration. While one company is doing it and 5 or 10 others are not doing it, you have to take that into consideration.

The Chairman: Does Borden manufacture a compound article?

Mr. Engels: Absolutely they do not. But I do want to make this recommendation on record. If Congress or the several States do not do something to stop this competition our company may be compelled as a matter of necessity to meet this competition to go into the manufacture of it, as much as they dislike to do so. And that is the next point I was going to make. Some critics have thoughtlessly argued that the manufacturers of the legitimate article should meet this competition by reducing the price to meet it. That is an absurd proposition. You might as well say that because somebody made a spurious $10 gold piece and sold it for 50 cents the way to meet it is give away your $10 gold pieces for 50 cents. You can't do that. There is only one way you can meet it, and that is to go in and make it yourself, and I know that some of these other companies do not want to make this stuff. They were dragged into it to meet competition with their legitimate articles. If Congress would stop the sale of it, I think they would be glad to stop the manufacture of it.

It is a very serious proposition. If we get into this and other companies get into it on a large scale, what is going to happen? There is more money on this to the retailer because there is a wider margin of profit and this stuff is going to increase and increase taking the place of the legitimate article. Who is going to suffer? Everybody. The manufacturer's good name and the farmers and everybody

will suffer. There is no end to the damage that will be done if this thing continues. It is open to anybody to make this patent.

The Hebe people purchased or acquired in some way the Graham and Barnett patent, which was taken out in 1916, which was bought to control the making of this compound, and they threatened other manufacturers to stop them making this compound, thinking they had a monopoly and could maintain that monopoly. Finally, they brought suit in the eastern district of Wisconsin against John F. Inse (I suppose the man who makes this Inso), and he defended the suit and the court held the patent was invalid. The court said it was well known long before that you could mix cocoanut oil and skimmed milk and made a product, therefore it is wide open to anybody to make this product. The filled-cheese fraud has been referred to abroad——

Mr. Sinclair: Would there be any reason why the farmers when they sold their product could not mix a little cocoanut oil and put it on the market?

Mr. Engels: Where is if going to stop, sir? They have done it with condensed milk and evaporated milk. They are furnishing it for ice cream. Why can't they do it with other things? They are going to do it till they cover the whole list of dairy products.

[fol. 414] The effect of selling filled cheese abroad has been referred to before the committee two or three times. It is interesting to note this: The Hebe Co. has applied for registration of its trade-marks in Colombia, South America, in Switzerland, in Denmark, and in Germany. How many other countries, I don't know. Presumably all of them. But I do have this record right before me. That means that they intend to extend this compound business to foreign markets, and when they find out what this stuff is the whole condensed-milk industry is going to get the black eye that the filled-cheese industry got. The foreigners certainly can't read your label. If the people here in the District can't read it in the places where we have gone into, the foreigners certainly will not.

Mr. Rainey: Does Bordens operate abroad?

Mr. Engels: Yes, sir. They sell abroad. They manufacture it here.

Might I be permitted to add to my remarks?

The Chairman: Without objection it will be so ordered.

Mr. McKee: Do you take the position that milk should be

sold exactly in the condition it is produced from the cow?

Mr. Engels: In what form?

Mr. McKee: With nothing added to it?

Mr. Engels: Yes, sir.

Mr. McKee: While you are referring to sweet and condensed milk you make that product, don't you.

Mr. Engels: Yes, sir.

Mr. McKee: That is a preserved product, is it not?

Mr. Engels: Yes, sir.

Mr. McKee: In the manufacture of that product you add to the whole milk 42 per cent of cane sugar.

Mr. Engels: Yes, sir.

Mr. McKee: Cane sugar is not a product of the dairy farm?

Mr. Engels: No, sir.

Mr. McKee: Do you believe that market has been built up as a separate market for sweet condensed milk?

Mr. Engels: Yes; there is no doubt about it.

Mr. McKee: There is a class of people who have been educated to use that particular product for particular products?

Mr. Engels: Use it for household products and other products. That was the original product. They didn't know any other way to preserve it. You know evaporated milk only started about 1880 something, and that is why the other milk——

Mr. McKee: People were educated to use that evaporated milk?

Mr. Engels: There is nothing about it that is unwholesome. It can't be compared with the milk compound.

Mr. McKee: I am trying to make the point that sweetened milk was the first product on the market and it is a preserved product; people were educated to demand that, and then evaporated milk came on the market and people were educated to use that sterilized product?

Mr. Engels: Yes.

Mr. McKee: The point I want to make is that this compound has come onto the market as a product of the dairy farm, and people are being educated to use it for specific purposes, for cooking and baking, and the people can be educated to use that?

Mr. Engels: My answer to that is that that is what you are trying to do, but the actual result in the field does not bear out that your work is successful; that when you reach

the retail dealer he has not listened to your instructions or orders, but he sells it fraudulently.

Mr. McKee: According to the statistics given out by the Department of Agriculture there were 85,000,000 pounds of this product produced in 1920. Approximately that would mean about 1,700,000 cases, would it not?

Mr. Engels: Yes, sir.

Mr. McKee: Which would mean there were 85,000,000 cans of this product sold in the United States in 1920?

Mr. Engels: Yes, sir.

Mr. McKee: That being the case, do you think it is fair to condemn this product by reason of the fact a few unscrupulous dealers have sold a few cans of the product for something that is different from what it really is?

Mr. Engels: That isn't a few. It has been found in every large city.

Mr. McKee: I mean from the facts as they were produced.

Mr. Engels: Mr. Chairman, would you be interested in knowing the facts in other States?

The Chairman: Yes; kindly include that in your remarks.

Mr. McKee: Before you conclude, I would like to put into the record some telegrams which were responsive to an inquiry made by Mr. Aswell, I think, as to how this product was sold, the differentials in price.

The Chairman: You are going to take the stand, aren't you?

Mr. McKee: If I have an opportunity.

The Chairman: Do you prefer to put them in at this time?

Mr. McKee: At any time before the hearing is concluded.

The Chairman: We are going to try to accommodate you all.

STATEMENT OF MR. CHAS. W. HOLMAN, SECRETARY NATIONAL MILK PRODUCERS' FEDERATION, WASHINGTON, D. C.

Mr. Holman: In order to save the time of the committee, I wish to enter a very brief general statement in behalf of the National Milk Producers' Federation, which is the national federation representing 20 whole-milk marketing organizations throughout the principal metropolitan districts of this country. I will file for the record a list of our or-

ganizations, together with the officers of the National Federation.

(The following is the list:)

The National Milk Producers' Federation

Member organizations.—Dairymen's League (Inc.), and Dairymen's League Co-operative Association (Inc.); New England Milk Producers' Association; Inter-State Milk Producers' Association; Maryland State Dairymen's Association; Maryland and Virginia Milk Producers' Association; East Tennessee Milk Producers' Association; Oregon Dairymen's Cooperative League; Kentucky and Indiana Dairies Co.; Queen City Milk Producers' Association; Ohio Farmers' Cooperative Milk Co.; Dairymen's Cooperative Sales Co.; Northwestern Cooperative Sales Co.; Michigan Milk Producers' Association; Southern Illinois Milk Producers' Association; Twin City Milk Producers' Association; The Milk Producers' Association and Producers' Cooperative Marketing Co. of the Chicago District; Milwaukee Milk Producers' Association; Louisiana and Mississippi Dairymen's Cooperative Association; Associated Dairymen of California; United Dairy Association of Washington.

[fol 415] *Officers.*—Milo D. Campbell, president; R. D. Cooper, first vice president; H. W. Ingersoll, second vice president; F. P. Willits, treasurer; George Brown, secretary; Chas. W. Holman, acting secretary.

Directors.—Milo D. Campbell, Coldwater, Mich.; R. D. Cooper, Little Falls, N. Y.; H. W. Ingersoll, Elyria, Ohio; George Brown, Sycamore, Ill.; G. R. Rice, 321 Ninth Street, Milwaukee, Wis.; W. F. Schilling, Northfield, Minn.; H. W. Tinkham, Warren, R. I.; W. J. Kittle, Crystal Lake, Ill.; J. D. Miller, Susquehanna, Pa.; F. P. Willits, Ward, Pa.; R. C. Reed, Howell, Mich.; Harry Hartke, Covington, Ky.; J. M. Henderson, Sacramento, Calif.; P. S. Breneman, Jefferson, Ohio; Richard Pattee, Newton Highlands, Mass.; J. A. Scollard, Chehalis, Wash.; Alma D. Katz, 408 Corbett Building, Portland, Oreg.; F. T. Holt, Kenosha, Wis.; H. J. Schultz, Shipman, Ill.; D. G. Harry, Pylesville, Md.; J. Wood Yager, LaGrange, Ky.

Executive committee.—Milo D. Campbell, R. D. Cooper, H. W. Ingersoll, W. J. Kittle, J. D. Miller. Alternates: Harry Hartke, R. C. Reed.

Mr. Balderston, representing one of our member organizations, has very adequately expressed the view of the federation as a whole. I wish in support of that to read a part of a reslution adopted and subscribed to by our federation in Chicago on May 3 and 4 of this year:

In recent years a compound made of condensed skim milk and coconut oil has been placed upon the market. The manufacturers of this product, commonly known as filled milk, claim that it provides a market for skim milk. This claim is not well taken, for instead of providing a market for skim milk it destroys a market for butter fat. In 1920, 7,000,000 pounds of coconut oil were used in the manufacture of filled milk, and as a result a market for 7,000,000 pounds of butterfat was destroyed and 8,000,000 pounds more butter was placed upon the market. In other words, the coconut cow of the South Sea Islands replaced 40,000 cows owned by American dairymen, and the price paid for skim milk to make this compound was not equal to what the live stock of the farm would return for it.

Moreover, this compound is sold as milk and when sold as such is a counterfeit. A fraud is perpetrated upon the consumer. It does not contain the nourishing properties of milk, which is the fundamental food of this Nation, and no producer has a right to so imitate it that the consumer is likely to be deceived. The dairy industry must be protected from this counterfeit and the consumer from deception; Therefore, be it

Resolved, That legislation be enacted to prevent the manufacture and sale of compound of milk, skim milk, and vegetable oils for human consumption.

Likewise, at Buffalo, on July 8, we passed a resolution, and I shall ask that that be made a part of the record.

The Chairman: Without objection it is so ordered.

(The resolution is as follows:)

Resolution Adopted by the Conference of Dairy Interests, Held at Buffalo, N. Y., July 8, 1921.

Whereas there is an alarming increase in the manufacture, sale, and consumption of bogus milk products, consisting of compounds of skimmed milk and coconut oil or other vegetable fats, and

Whereas such products, regardless of the labels on the containers, are being sold in large quantities as con-

densed milk and other milk products, thereby at once becoming a fraud on the consuming public as well as a menace to the public health and to the dairy interests: Therefore, be it

Resolved, That we favor the abolition of such traffic by Congress by direct prohibitory or restraining laws.

Mr. Holman: I will not take any further time of the committee except to bring up this one point. The policy of our various city authorities and the State governments, and I subscribe to the policy, is to surround the production of milk and dairy products with every possible safeguard for human health. The farmers in their willingness to carry out these regulations find themselves constantly confronted with increasing cost of production. The same character of safeguards is not found in the original production of coconut oil. I know that from personal experience, having been a representative of the Food Administration in the Orient during the last year of the war, and the major part of my duties was to study these vegetable oils, their production and distribution. I have seen the copra come in in the junks to Yokahama with barefoot workmen with sores all over their feet, and I may be very frank, some of them syphilitic. I have seen the same type of workmen handling the copra in the mills. The health conditions surrounding the production of that oil is not of the very best, so far as the Japanese trying to handle it there. Consequently, we have not the same measure of protection in regard to the health, nor do we have the same measure of protection in regard to the point of manufacture.

The dairy producers in this country handle something like $400,000,000 worth of milk a year, and they feel that the big issue involved in this particular legislation is the competition of the fats and is not the competition in respect to the use of the skim milk. We feel that we have just as big and broad a market for our skim milk when it is sold in the genuine product, and we certainly have a much more genuine market when the fats are used in the butter fats in the production of the genuine article. Consequently, Mr. Chairman, we wish to go on record as being heartily in favor of the most prohibitive type of legislation that it may be the judgment of the Congress to give us in this matter.

I wish to thank you for your consideration.

Statement of Mr. A. M. Loomis, Secretary, National Dairy Union, and Assistant to the Washington Representative of the National Grange.

Mr. Loomis: I am appearing specially as secretary of the National Dairy Union. Some questions have been asked, Mr. Chairman, about the attitude of butter manufacturers on this legislation. The organization of which I am secretary consists of about 500 cooperative butter manufacturers, cooperative creameries, along with a few other creameries of the other type. These are the paying members as shown by this year's record and along with that affiliated with the butter manufacturers generally throughout the United States.

The butter manufacturers have not been active in the promotion or in any request for this legislation. The history of this legislation as I understand it, is about as Mr. Balderston stated it before the committee to-day, but when the legislation came before this committee and the fact as to what it was and what it aimed to do was generally understood, I received instructions from the officials of the National Dairy Union to put all the efforts of which I was capable behind this legislation. Because it is unquestionable that there is just as serious economic result aimed at the butter interests in the United States involved in the large production of these spurious milk products as there is against the other elements of the milk industry. That is, we have been in competition as butter manufacturers during the past year with approximately 8,000,000 pounds of other butter, or its equivalent in cream which has been removed from the milk which has gone into these other products, according to the testimony of the manufacturers. If that is increased to the extent as predicted by the manufacturers to 8,000,000 pounds in the next [fol. 416] year, it means we will be face to face with a very serious proposition. The fact that faces the dairy manufacturers in the United States to-day is a surplus product and add to all this coconut fat introduced in various channels a certain kind of milk, so that the public does not know what they are getting.

There are so many things to be stated during the short time I am staying here I do not know which one to emphasize. Perhaps the main one in my own thinking at least is the public health effect, and I want to have the

record as strong as possible on the subject that this product made of skim milk and vegetable fats does not contain the vital elements which are essential, as Dr. McCollum pointed out, not only to the growth of children but to the proper maintenance of the health of adults and prevention of premature old age. I have here an amplified statement from Dr. Hart, copy of his testimony before the investigating committee of the Wisconsin Legislature, which, with your permission, I would like to file for the record.

The Chairman: Without objection, it is so ordered.

(The following is the statement from Dr. Hart's testimony:)

"Filled Milk" A Health Menace

The following is Dr. Hart's testimony as presented:

The traffic in substitutes in the animal and human dietary became prominent during the war. This substitution, however, only extended to the cereal grains, and on the advice of nutrition experts barley or corn was substituted for wheat. This advice never extended to milk products and to substitute a vegetable oil, such as coconut oil, for butter fat has never met with the approval of those who understand nutrition problems. To-day there is considerable traffic in the manufacture and sale of a filled milk; that is, a milk from which the butter fat has been extracted by centrifugal processes and in which a cheaper fat, mainly coconut oil, has been substituted. One of the prominent brands of filled milk on the market is "Hebe." The buying public is just as likely to buy a can of this condensed filled milk as it is a can of condensed whole milk, unconsciously expecting that it is buying materials of equal nutritive value. On this latter point—equal nutritive value—science has gone far enough to give us undisputable facts and these facts I want to present in this short discussion.

The main difference between the two products, evaporated filled milk and evaporated whole milk, is the content of fat soluble vitamine. This vitamine is recognized as just as essential for growth and maintenance of an individual as is protein or a balance of mineral salts. In its absence in the dietary, the animal's growth is suspended with the manifestation of a diseased condition of the eyes. The ultimate effect is blindness with sudden

death, often complicated with respiratory troubles. A few years ago, before we knew much about the distribution of this vitamine, and before our methods of experimentation were as well perfected as they are today, the statement went forward from this laboratory that separator skimmed milk contained about one-half or 50 per cent of the fat soluble vitamine orginally contained in the whole milk. In other words, that about 50 per cent had been removed with the removal of the fat. To-day we know that this figure is too high for the content of this vitamine in skimmed milk. With refinement in our experimental procedure Dr. Steenbock has shown that the fat soluble vitamine content of skimmed milk is less than one-tenth of that which was originally present in the whole milk. In other words, probably over 90 per cent of the fat soluble vitamine in whole milk has been removed in the skimming processes. This fact makes skimmed milk a poor source for the fat soluble vitamine. When rats are fed a ration which is practically free from fat soluble vitamine, 10 c. c. of skimmed milk will not induce normal growth, while one-half to 1 c. c. of whole milk will induce a normal rate of growth. The basis then for objection to a traffic in filled milk rests upon the scientific fact that skimmed milk, which is the basis of this product, has been robbed very largely of one of its great essentials of nutrition.

The next outstanding fact derogatory to a filled milk as being of equal value to a whole milk is this: The coconut fat or oil which is added is in itself practically free from the fat soluble vitamine. It, like practically all other vegetable oils, is so free from this nutritive factor that it is difficult to establish whether it contains any fat soluble vitamine.

These two facts—low content of fat soluble vitamine in the skimmed milk and the addition of an oil practically free from this nutritive factor—must make it clear that filled milk is no substitute for whole milk in the nutrition of infants or of children. It may be argued that there are a number of foodstuffs that do not contain vitamines, such as polished rice, lard, bacon fat, etc., but none of these products enter into the dietary in competition with whole milk. Whole milk in the nutrition of the young stands in a class by itself as a great protective food, and any attempt to substitute something inferior, such as filled milk, is to traffic in human lives for monetary gain. Further,

it may be argued that filled milk is a wholesome food product. That, we do not dispute; but we do most emphatically insist that it is not the equivalent of whole milk—the thing with which it competes on the market. Further, it may be argued that coconut oil is just as digestible as butter fat; that coconut oil has just as many heat units in it per gram as butter fat. These statements again we do not deny; but is a long exploded theory that heat units and protein are the sole factors in making up human diets and animal rations.

There is a bill before the Wisconsin Legislature which if passed aims to prohibit the manufacture and sale of filled milk in the State of Wisconsin. This bill should pass if for no better reason than that an uninformed public is just as likely to buy the substitute as it is to buy the genuine article, namely, the evaporated whole milk. The nutrition of the American people should always be liberal. For direct consumption we should never allow as valuable a product as whole milk to be in any way tampered with. The condition into which the people in middle Europe sank during the war in respect to their nutrition ought to make us emphatically insistent upon the use of a liberal dietary for ourselves and our children. The substitution of the inferior coconut oil for the superior butter fat in a product like milk is a thing that the public should not tolerate for one moment.

Mr. Loomis: I also prepared a very brief statement which, without reading or taking the time of the committee, of my own, I would like to file with the record at this time.

The Chairman: Without objection, it is so ordered.

(The statement is as follows:)

The case of the American public against filled milk is too well understood by the members of this committee to need emphasis or explanation.

Last year nearly a hundred million pounds of this spurious "milk" was made and sold, and in my belief every pound replaced in the markets of the country a pound of real condensed milk, thus selling under false pretenses, either expressed or implied, not less than 8,000,000 pounds of fats or oils, not butter fat, to the public for or in place of butter fat.

These fats or oils substituted for butter fat cost the makers of this product from 7 to 13 cents a pound, and they sold at or near the price of butter fat, which is worth from 30 to 50 cents a pound, and at times in the past year much more than that price.

Instead of furnishing a market for large quantities of skimmed milk, as claimed, this product crowded out of the market exactly the same amount of skimmed milk as its producers used, and in addition crowded out 8,000,000 pounds of butter fat, which is the expensive part of the milk to produce.

That there is a surplus of skimmed milk is admitted. This filled milk industry has helped to produce it. To try to sell it to the uninformed public by blending a cheap and less-valuable-as-a-food fat is an attack on public health, a business fraud, an uneconomic method of solving an economic problem, and an attack on the dairy industry, which, if permitted to grow, will seriously if not vitally injure it.

There was a collapse of the condensed milk market last year about this time. It was explained by the falling off in imports of condensed milk. I wish to submit that if the hundred million pounds of spurious milk, made by the manufacturers of filled milk, which was then on the market, had not been there that collapse would probably have been prevented by the ability of the American trade to absorb the whole milk product, and that factor which added greatly to the general economic collapse of 1920 would probably have been prevented.

The consideration of the manufacturers of filled milk for the dairymen and their great desire to furnish a market for his waste product would be amusing if it did not seem to have interested one or two members of the committee. The only real point of contact between producers of milk and consumers of milk, whether butter manufacturers, condensed-milk manufacturers, filled-milk manufacturers, cheese manufacturers, or the consumers of fluid milk, is [fol. 417] their general interest in perpetuating the dairy-producing industry. Buyers want milk as cheap as they can get it, producers want milk as high priced as they can sell it. They agree only in their effort to keep close enough together so the dairy industry can maintain itself and prosper. When this is not true, both parties suffer, and the general public worst of all, in the final price readjustment.

The only part of this whole economic structure which is out of line at this time is that part of it which is trying to inject coconut and other cheap oils into the channels of dairy products distribution. These oils may be foods and have a legitimate place in the American diet—I think this possible—but I wish to warn this committee and through it the public generally that to permit these cheap and less valuable from a food elements to be mixed in with compounded or otherwise camouflaged with and by milk, so the milk flavor and the milk color deceives the purchasers into thinking that the fat is milk fat, means the ultimate undermining of the dairy industry to the end that producers, manufacturers, and consuming public will suffer.

The greatest suffering will come on the general public if this is permitted to go on. I am not pledged or committed to the method of preventing its continuance, but I know it must be stopped. The dairy industry is a vital industry to the health of the people, and to the permanence and continuance of American agriculture. I personally believe that the theory and the presence of vitamines is an established scientific fact that this committee can not ignore. I believe vitamines are essential to child growth and welfare, to adult health, and to the longevity of the race, and the postponement of early senility, and I believe that a proper amount of these vital factors can not be had in our diet without using even larger amounts of milk or butter fat than is now used in the average family, to say nothing of those in the South where the dairy industry is backward, or those in the great cities who find difficulty in getting the milk or butter in good condition. I know in my own experience in a family of six persons, four of them children, that I can not possibly supply them with the only other source of vitamines, in quantity, quality, and palatability, so the green stuff will be consumed by them. If I with a reasonably proportioned budget for food in my family can not do this, what chance is there for the "other half" to properly feed their families in the chief source of vitamines if the diet of the city dwellers is poisoned at its source by a flood of coconut oil adulterated milk being flaunted before them, and especially if this product is so handled and sold as to make the perpetuation of the imposition a matter of special profit to manufacturer and vendor.

The big market for condensed milk is the baking, confectionary, ice cream, and city grocery trade. If this industry is developed as it should and will be if this coconut cow menace is removed, the time will not be far distant when every city dweller will secure in his diet from the products made with condensed milk, that is the bread, cake, pastry, cookies, and the creamed foods prepared in the home, the condensed milk in his tea and coffee and cocoa, and those other food uses for which condensed milk can and will be used instead of the fluid milk, at least a half of the necessary supply of vitamines. Now picture to yourselves the results if this use is taken, as the manufacturers of this spurious product frankly say here they propose and expect, by a spurious milk which does not contain the butter fat, and therefore 90 per cent less of the vital elements or vitamines.

Looking ahead, to the time, when if legislation is not now enacted to curb this selfish exploitation of public and dairymen, these manufacturers frankly state that they expect to make and market a billion pounds of this product, I want to picture to you the condition of the dairy industry at that time, and the resulting condition of the milk-buying public. A billion pounds of this filled milk will contain 80,000,000 pounds of butter fat, which will have caused an overproduction of that amount of butter. It will have driven out of the market a billion pounds of condensed whole milk, creating a surplus of another 80,000,000 pounds of butter which must be used out of that amount of whole milk. This will add 160,000,000 pounds of butter fat to the available supply. Milk prices to-day the country over are based on the price of butter fat. This will mean that at some time during this process the price of milk will have reached down to such a point where the dairyman will go out of business. There is no escaping this fact, and during this period these manufacturers of spurious products will be able to get their skim milk for practically nothing. They may be asked to draw it away from the other plants. But this is only the first step. The American farmer never has and never will stand for this, and he holds in his hands the other remedy. Price and production will remain at balance, inevitably, and enough dairymen will go out of business to create a shortage in milk, beside which the present decline in beef cattle will be but a circumstance. When that happens the public will pay, and

will pay over a long period of years, for the upbuilding of American dairy herds which will have gone to the butcher shops in the interval.

This will all rest on the introduction of coconut oil, and other cheap fats into trade and commerce under such a guise as butter fat that the public not knowing the difference will buy them. The time to stop this economic ruin of dairying is before it gets to the point where it is too powerful to stop. The time to stop it is now.

For the National Grange, let me say that Prof. T. C. Atkeson, Washington representative, is not in the city at the present time, but this matter has all been gone over between Prof. Atkeson and myself, and I can state to the committee that his position is that these products in which coconut oil or other vegetable oils are used to be sold so that the public do not know that they are buying a vegetable oil in place of butter fat, constitutes, in his opinion, a menace which should be prevented by any adequate legislation which can be framed and passed by this Congress.

The Chairman: Mr. Loomis, have you a statement indicating the number of States that have enacted laws on this subject?

Mr. Loomis: I haven't that statement.

Mr. McKee: Mr. Chairman, Mr. Loomis has put into the record what purports to be a copy of the testimony of Prof. Hart, I assume before the senate committee of Wisconsin, which is a statement which appeared in the Hoard's Dairyman. That is not a complete copy of Prof. Hart's testimony, and I think if Prof. Hart's testimony is going into the record, a complete statement of his testimony should be filed.

The Chairman: Have you a copy of the complete statement?

Mr. McKee: I have a complete copy of the statement and questions and answers made by Prof. Hart before the senate committee.

Mr. McKee: Another question I would like to ask Mr. Loomis. In 1920, according to the statistics furnished by the Department of Agriculture, there were about 1,500,000 pounds of butter produced in 1920—is that correct?

Mr. Loomis: Something like that.

Mr. McKee: And you estimate the amount of butter released by reason of these compounds just about 8,000,000 pounds?

Mr. Loomis: Using your figures.

Mr. McKee: Using that as a basis showing the amount of compound being produced in 1920?

Mr. Loomis: Yes, sir; less than that.

Mr. McKee: So that the total amount produced in 1920 would be about 0.04 per cent?

Mr. Loomis: Using your figures.

Mr. McKee: At the present time the manufacture of these compounds is not a menace to the butter interests of the country?

Mr. Loomis: Mr. Chairman, in answer to that let me say just a word or two more. In the face of a surplus production any addition is a menace, even as small percentage as the one mentioned by Mr. McKee. The facts are that the condensed milk industry of the United States had a collapse about a year ago now, due to various reasons, one of which, of course, every one admits, the cutting off of foreign exports. But I want to submit to the committee that if the 85,000,000 or 95,000,000 or 100,000,000 pounds of this product which were on the market at that time had not been on the market there would have been far less likelihood of the collapse in the condensed milk industry, because I think it is plain at this time every can of this that is sold replaces a can of condensed whole milk, and that collapse of the dairy industry not only affected the pro- [fol. 418] ducers of this milk who sold it at much less than they ever sold it before—the people who manufacture this compound, but it has affected the butter market and all the fluid milk in this country and every other dairy product, and consequently while this may figure now a small percentage it is just one of those instances where that ease of making an immense profit for the grocery store by selling a cheaper product and a less vital product for the real product has hurt the entire industry as measured by that portion of the product that is already sold, and as mentioned in these gentlemen's statements, they don't expect to stop at that if they are permitted to go on at all.

Mr. McKee: In view of your statement that the market could not absorb any more of condensed milk than last year, the milk used in other products would have been employed in the manufacture of butter, would it not?

Mr. Loomis: I don't know.

Mr. McKee: It is very safe to assume that it would.

Mr. Loomis: It is fair to assume that the skim milk you

used would have been fed to hogs, and it is very probably the best place to put it.

Mr. McKee: Or wasted?

Mr. Loomis: It would not have been wasted. If there is any question about that, Mr. Chairman, we would like to submit testimony as to that use of skim milk.

Statement of Mr. Paul R. McKee, Representing the Hebe Co.

Mr. McKee: In response to those questions which were asked here the other day, I communicated in New York with a number of chain stores in New York who are selling compound and advertised brands of evaporated milk. In response to those inquiries I have a number of telegrams and letters here which I will read, if you would like, or put them into the record.

One is from the Atlas Stores (Inc.), being a telegram, and it reads:—

In all our 50 retail branches in New York and vicinity we are selling all popular brands 16-ounce tall evaporated milk at 12 cents and Hebe 16-ounce tall cooking compound at 9 cents.

Attached to the telegram is a letter from the Atlas Stores (Inc.) confirming the telegram.

Here is a telegram from Acker, Merrill & Condit Co., of New York:

Our retail price to-day on Hebe cooking compound 10 cents per 16-ounce tin. On Bordens, Van Camp's, Carnation and other advertised brands, 13 cents, or two for 25 cents, on 16-ounce size evaporated milk.

Attached to that is also a letter confirming the telegram.

A telegram from Progressive Grocery Stores (Inc.), signed John P. Rottman, secretary:

Dear Sir: In our 52 retail grocery stores in Greater New York we are selling Hebe milk compound for exactly what it is named, a cooking liquid at 9 cents for a 16-ounce tall can; and we are selling various brands of full cream evaporated milk at 12 cents a can.

Very truly yours, Progressive Grocery Stores (Inc.),
John P. Rottman, Secretary.

Also attached to that is a letter and invoice showing how it is sold.

A telegram from W. H. Parker, jr., New York, who, at my request, made this investigation:

Personal investigations this afternoon as to comparative prices in retail grocery stores of milk compounds as against full cream evaporated milk shows a variation of from 2 cents to more than 3 cents per can. Atlas Co. operating 51 stores selling Hebe as cooking compound 9 cents per 16-ounce can, whereas they charge consumers 12 cents per can for all brands full cream evaporated. Progressive Grocery Stores operating fifty-odd grocery stores selling Hebe as cooking liquid 9 cents per can, same stores selling full cream evaporated 12 cents per can. Acker, Merrill & Condit selling Hebe 10 cents; advertised brands evaporated 13 cents or two cans for quarter. Acker-Merrill selling unadvertised brands evaporated 12 cents per can. Thomas Roulston operating 156 stores selling Hebe 3 cans for quarter, their price to consumers on full cream evaporated 12 cents per can. Atlas Progressive and Acker-Merrill chains are wiring and writing you today confirming above. Every single one of these stores selling Hebe and other compounds as compound and not as evaporated milk.

I also would like to put into the record that for a number of years in every case of compound that is sold we place on the top of the case this notice, "Important Notice to Grocers". "Do not sell Hebe as evaporated milk". I will not take the time of the committee to read the notice but I would like to put that into the record.

The Chairman: Without objection it is so ordered.

(The notice is as follows:)

IMPORTANT NOTICE TO GROCERS

Do not sell Hebe as evaporated milk.

The legal definition of evaporated milk requires a product so designated to contain a specific quantity of milk fat (animal), whereas the fat content of Hebe is vegetable; hence the selling of Hebe as evaporated milk is a misrepresentation, and is punishable by fine.

Hebe is a pure, wholesome and nutritious food, consisting of only two ingredients, pure fresh cows' milk from which the milk fat has been removed and the refined edible fat of the coconut. Nothing is added to and nothing is taken from the food value of either in the process whereby they are combined.

Hebe complies with pure food laws, Federal and State. Its purpose is to supplement the use of milk for cooking, baking, and with coffee, cocoa, etc.

Sell Hebe on its own merits and for exactly what it is: A compound of evaporated skimmed milk and vegetable fat.

THE HEBE CO., *Chicago-Seattle.*

Mr. McKee: Now, in response to questions of the committee as to the difference in price between different compounds and evaporated milk sold in Washington, the opportunity wasn't present for me to make a personal investigation but I have now here Mr. Lippman, who has been in personal touch with the retail grocery business in Washington for several years, whom I would like to appear before the committee personally and state briefly the difference in demand between compounds and evaporated milk and method of selling.

The Chairman: We will hear Mr. Lippman.

Statement of Mr. M. Lippman, Salesman for Hebe Co., Washington, D. C.

Mr. Lippman: I have been with the Hebe Co. for about four years. I have been selling Hebe and Carnation milk.

The Chairman: What is your business?

Mr. Lippman: I am salesman here for Hebe and Carnation. In all my experience and every store I have called on and sold Hebe I have made it very plain to the mer- [fol. 419] chants how this product was to be sold, and I have taken personal observation in every case, and I haven't found one yet where the product of Hebe has been misrepsented. It is sold just as it is labeled. In all cases I found the difference in price of 2 and 3 cents. Our Hebe to-day is selling at 10 cents in stores; Carnation, Pet, and Borden is selling for 12 and 13 cents.

Mr. Voigt: Don't you know that some of the big chain stores here in Washington in the last few months have advertised this product as Hebe's milk?

Mr. Lippman: No, sir.

Mr. Voigt: I state that to be a fact because I have seen them personally.

Mr. Lippman: As Hebe's milk?

Mr. Voigt: Yes, sir.

Mr. Lippman: The biggest store we have here is the

Sanitary Grocery Co. and they have always advertised it as Hebe's compound evaporated milk. I had occasion to go into one of the Sanitary Grocery stores this morning to buy a can of Rogers's evaporated milk sold here in the city for 10 cents—it is a new brand, I have it here before you. I also asked one of the salesmen in the store what he was getting on Nu-Tro. He told me 10 cents. I asked him why this milk was sold at the same price. The only information he could give me was that they probably were selling some specially to introduce it on the market here. I also asked him the price on Pet and Borden's on the market here. He told me 10 cents. He particularly told me that when he sold Nu-Tro he sold it as a compound and in all the advertised brands they sold it as evaporated milk.

I have a number of merchants here that have been selling Hebe for four years and I don't know of any case where they have misrepresented it; and I don't know of any case where they are selling Hebe at the same price as they are selling Pet milk or Borden's or any *any* other brand.

The Chairman: Is Rogers's a new brand?

Mr. Lippman: Yes, sir. The first time I have ever seen a can of it was this morning.

The Chairman: Do you know of its quality as compared with the other?

Mr. Lippman: No, sir; I do not. I sell this Hebe in all parts of the city. In fact we have had inquiries from the finest residential sections of the city about Hebe. I have taken samples of it up on Connecticut Avenue and left it in some of the nicest houses. They have seen the advertisements and wanted to try Hebe. It is sold in all sections of the city and sold as Hebe, just what it is labeled.

Statement of Mr. L. H. Wilson, Representing the Indiana Condensed Milk Co., Indianapolis, Ind.

Mr. Wilson: Our company has been manufacturing Wilson's milk for the past 18 years. Wilson's milk is full cream evaporated milk, such as Borden's or such as Carnation. During all this time our business has grown, the production of our milk around our factory has increased. We have tried as well as we could to keep pace with the industry in the different little articles. We manufacture all products made of milk with the exception of powder. About three years ago we made an exhaustive study of milk compounds. We were at that time adverse to their manu-

facture and sale. We went to a great deal of trouble to have photographers go around in different markets and take pictures and displays of milk compounds where they were advertising fraudulently, endeavoring to get the pure food people in different places in a mood to look after this advertising. I am telling you this to show how adverse we were to manufacturing the product. At the same time we were making investigation as to manufacture of the future and endeavoring to tell what the ultimate outcome of the manufacture of such a product would be. And early in 1918 we began the manufacture of a milk compound. NU-TRO is the brand under which our compound is sold. Our evaporated milk is Wilson's milk. There is no use for me to discuss all the phases of this article. They have been discussed pro and con, but I simply want to go on record in behalf of our company that we are against this legislation. It will work a hardship on our company and on the farmers from whom we buy milk.

Just one other point I want to bring up, and that is Mr. Engels, of the Borden Co., made the statement that evaporated milk had greatly decreased in volume of sales in Indiana since 1918, and that Hebe had greatly increased. Our main office is at Indianapolis. Our two largest factories are at Sheridan and Lebanon, Ind.—and by the way, in Mr. Purnell's district. We should be able to know about the sales in Indiana. Our sales in Indianapolis have increased something over 19 per cent over 1918 in 1919, and 13 per cent over 1919 in 1920. Our sales outside of Indianapolis have increased. That is exactly opposite from the testimony which was given by Mr. Engels.

Mr. Voigt: Your testimony and the testimony of Mr. Engels are not necessarily contradictory. Naturally, being located in that field you would be able to hold your own or increase your sales. Mr. Engels referred to all sales of condensed milk in Indianapolis—not to your brand.

Mr. Wilson: We have just concluded an investigation of sales in Indianapolis conducted by one of the newspapers and which shows that the sale of evaporated milk has increased. The sale of Bordens did not increase. They did not advertise any during the war, and I think for that reason they have not increased. Carnation have increased their distribution due to national advertising, we take it. Of course, we try to study the competitor's method and determine how he gets it.

Mr. Voigt: As I understand you, several years ago you sent photographers around?

Mr. Wilson: We did.

Mr. Voigt: In order to get evidence on which to base prosecutions to put the compound out of business?

Mr. Wilson: We couldn't procure sufficient evidence so that the food authorities of these different States would do anything.

Mr. Voigt: You found that there were no laws in the various States under which the compound could be suppressed?

Mr. Wilson: There are laws governing the sale of milk as to standard quality which milk is sold. I don't know of a State where there is not a standard of some kind. It is either 3 per cent or 3.05 per cent. The standard of evaporated milk is a matter of the pure food laws and it would be unlawful to advertise Hebe's milk in face of the pure food acts.

[fol. 420] Mr. Voigt: And that is why all you manufacturers have resorted to trade names instead of calling it a milk compound or calling it milk? You are bound to admit it.

Mr. Wilson: We have a trade name and Carnation is a trade name that doesn't signify milk any more than Hebe signifies milk.

Mr. Voigt: But if you will look at the label of Carnation it calls for milk?

Mr. Wilson: Yes, sir.

Mr. Voigt: In Nu-Tro it doesn't call for milk?

Mr. Wilson: We call it Nu-Tro.

Mr. Voigt: You are not permitted under the pure foods and drugs act to manufacture and ship that article as milk? You are aware of that?

Mr. Wilson: Certainly.

Mr. Voigt: Then if I understand you correctly you are opposed to the manufacture of this compound and tried to put it out of business and found you could not succeed?

Mr. Wilson: We had the mistaken idea that it would hurt the sale of our Wilson's Milk, but we found that due to the price at which it was sold the housewife took this article to use as a medium of cooking where she used flour and water. It is impossible for a housewife to use raw skim milk because the cost of delivery is the same as it is on whole milk and the cost to the consumer would be so much

that she would not buy skim milk for cooking. And besides that, skimmed milk is an unpalatable product. Coconut oil is an unpalatable product, both of which have undisputed food value, and there we have combined two unpalatable products into a palatable product.

Mr. Voigt: You tried to put this by-product out of business several years ago, and when that didn't succeed you determined to go into business for yourself?

Mr. Wilson: When we saw it had a place of its own the same as skimmed condensed milk or powdered milk we went into that business.

Mr. Voigt: You didn't answer my question. You tried to put this compound out of business several years ago and when you found you could not succeed you then determined as a measure of self-defense to go into the business yourself?

Mr. Wilson: Not as a measure of self-defense, but as an output for a by-product of our business.

Mr. Voigt: You did start out several years ago to put the compound out of business?

Mr. Wilson: We started to put it out of business till we found it was a real product that had merit that should be available for the housewife as a cooking medium.

Mr. Voigt: I am rather surprised that you, instead of investigating first whether it was a good product and whether it would be advisable for you to make it, you went to work in an endeavor to put the compound out of business? It doesn't seem to me that your explanation of that now is logical.

Mr. Rainey: Your suggestion, Mr. Wilson, is that you first thought it was detrimental but by application of study you were enlightened?

Mr. Wilson: Exactly, by study of vegetable oils for the last 10 years; for instance, in 1912 the per capita consumption of butter substitutes was one pound. We began to study vegetable oils. It was brought out in the testimony this morning that peanut oil had a great deal of the vitamines. That was something we didn't know 10 years ago.

Mr. Voigt: But you didn't arrive at the conclusion that this was a valuable product till you found you could not put the compound out of business?

Mr. Wilson: During the time we were investigating this we were making experiments as to the value of this, how long it would keep and what the food value was in the use in the

home. We have used this compound in the homes of the officers of the company ever since Hebe came on the market.

Mr. Voigt: You didn't start to manufacture the compound till you had ascertained you could not put the compound out of business?

Mr. Wilson: I wouldn't say that; no.

Mr. McKee: What do you mean by put out of business?

Mr. Voigt: I mean have laws passed to prohibit the manufacture and sale?

Mr. Wilson: We had no objection to the compound, but to the method of advertising. We were using it in our homes to determine that.

Mr. Voigt: Your proceeding against the compound was because you thought it was being improperly advertised?

Mr. Wilson: Exactly.

Mr. Voigt: And did you find it was being improperly advertised?

Mr. Wilson: In a very few instances. That was in 1912 to 1916 that we conducted those investigations.

Mr. Voigt: You are aware of the fact that at the present time concerns do offer this compound for sale as milk?

Mr. Wilson: Concerns advertise all-wool suits that are cotton.

Mr. Voigt: That may be true but that wouldn't be any defense for advertising an article as milk which is not milk?

Mr. Wilson: Why shouldn't you demand that the retailer that sells a suit of clothes, and tells me that it is an all-wool suit, should tell me it is half cotton?

Mr. Voigt: I would be in favor of that sort of legislation, but we can't very well combine that with milk legislation.

I request leave to insert in the hearing a letter from Dr. McCollum. I move that the hearing be closed.

The Chairman: Without objection it is so ordered.

Mr. McKee: I would like to have the record show that the opponents of the bill would like to have permission to place into the record letters from retail grocers in the city of Washington showing the difference in price, the retail price to the consumer, between evaporated whole milk and compounds.

The Chairman: Without objection it is so ordered. It is understood that this data to be inserted will not be long—there will be a limit to it.

C. D. Kenny Co.,
Washington D. C., July 22, 1921.

Mr. Walter Leaman, 945 Pennsylvania Avenue, N. W., City.

Dear Sir: As per your request of to-day as to how we are selling Hebe along with other brands of evaporated milk, we wish to state that there is a differential wholesale price between Hebe and Carnation milk of $1.50 a case and a differential in retail price of about 3 cents per can.

Hebe is sold as an evaporated skim milk, and merchants making these purchases are aware of the laws pertaining to the sale of the product.

Yours, very truly, C. D. Kenny Co., Per George W. Wilson, Manager.

[fol. 421]

Snyder-Miller & Co.,
Washington, D. C., July 21, 1921.

Mr. Walter Leaman,
Washington, D. C.

Dear Sir: In response to the request of Mr. Lippman as to how we have sold Hebe, we wish to state as follows:

The product of Hebe has always sold as a compound of evaporated skim milk, and the differential in price between Hebe and the standard brands of evaporated milk has always been from $1.50 to $1.75 per case. All merchants purchasing this product have been instructed how it should be sold to the consumer, and to our knowledge we know of no retailer in the District of Columbia who has ever misrepresented this product.

Very truly, yours, Snyder-Miller & Co.

J. E. Dyer & Co.,
Washington, D. C., July 21, 1921.

Mr. Walter Leaman,
Washington, D. C.

Dear Sir: In response to your request as to how we sell Hebe,

Hebe has always been sold as a compound of evaporated skim milk. The differential in price between Hebe and other

standard brands of evaporated milk has always been from $1.25 to $1.50 per case.

All grocers purchasing Hebe have been cautioned as to the laws governing the sale of compounds, and we know of no case either in Virginia or the District of Columbia where merchants misrepresent the sale of this product.

Also wish to state that Hebe has never interfered in the sale of any evaporated milk.

Respectfully, yours, J. E. Dyer & Co.

Mazo Bros. Co.,
Washington, D. C., July 20, 1921.

Mr. Walter Leaman, City.

GENTLEMEN: In response to an inquiry of Mr. Max Lippman, we wish to advise we have sold Hebe in the past along with staple brands of evaporated milk at a price ranging from $1.25 to $1.50 per case cheaper than ordinary brands of evaporated milk. We have always sold Hebe as a milk compound, as stated on the label, and we are not aware of any confusion between this Hebe product and evaporated milk. We have had a limited sale among our customers who have known the difference between the two commodities.

Yours, truly, Mazo Bros. Co.

Frank Hume (Inc.),
Washington, D. C. July 21, 1921.

Mr. Walter Leaman.

DEAR SIR: As per request of Mr. Lippman as to the differential in price of Hebe and other standard brands of evaporated milk, I wish to state that there has always been a difference of about $1.50 per case. In selling Hebe it has always been sold for what it has been labeled.

Yours, Frank Hume (Inc.), by Frank N. Hume, President.

The Washington,
Washington, D. C., July 19, 1921.

Hon. Gilbert N. Haugen,
Chairman Committee on Agriculture,
Washington, D. C.

SIR: I explained to your committee at the close of to-day's session that I had brought with me from New York Dr. Harold O. Nolan, who some time ago, before H. R. 6215 was introduced, had been retained by my client, the Nucoa Butter Co., to make an investigation, on the scientific side, of the food value of the compounds into which coconut oil enters as a factor. Dr. Nolan had been recommended to us very highly as a scholar of experience and ripe judgment. He is a pupil and close friend of Prof. Hopkins, of Cambridge, widely known as the father of vitamine knowledge. Unfortunately Dr. Nolan is unable to remain over for to-morrow's hearing, and it was suggested that Dr. Nolan file his statement. The inclosed presents his views in brief form, and I beg to commend it to the earnest consideration of your committee.

I regret exceedingly that I am called back to New York to-night and that I shall be unable to be present at your closing session. My client is vitally interested in the measure under consideration. It has a large investment at various points throughout the country. Practically all of the coconut oil which it imports comes from the Philippine Islands. A large part of the price at which it sells the oil represents the cost of refining in this country. It is a large employer of American labor. It has every right to call itself a representative American industry, engaged in promoting a wholesome food product, and as such, deserves and expects the fair play which I know your committee will be willing to grant.

Permit me to express the sincere appreciation which I feel at the kindness and courtesy which you and your committee have shown in connection with this hearing.

Respectfully, A. M. Davis.

(Dr. Nolan's statement is as follows:)

Washington, D. C., July 19, 1921.

Hon. Gilbert N. Haugen,
Chairman Committee on Agriculture,
House of Representatives, Washington, D. C.

SIR:

Although the existence of more than one kind of vitamine in milk has been alluded to in the evidence that has been given before your committee, nevertheless it is desirable to emphasize that only — of the three generally admitted vitamines (with a possible fourth) is present in butter fat. This is the fat soluble A. The remaining three factors, the antiberi-beri vitamine, the antiscurvey vitamine, and the factor which prevents pellagra, are retained in the skimmed milk and do not pass into the butter fat. Fifty per cent also of fat soluble A is retained in the skimmed milk. Comparing the evidence of the two experts whose statements are on record with you, namely, Prof. E. V. McCollum and Prof. Lafayette Mendel, the first point that needs stressing is that there is little or no difference on matters of fact, merely a different way of presenting same facts. It is, however, true that Prof. McCollum avoided mentioning that the skimmed milk contained half of the fat soluble A. It is difficult to understand this omission in view of its cardinal importance to the question before your committee. Neither of these distinguished experts did or could say anything in disparagement of either coconut oil or skimmed milk as food for human beings. Separately and in combination they are universally recognized by nutritional experts as foods of the highest order, each in its class. It is known that the division of a fat into fine particles (emulsification), which is the condition in which coconut oil is present in milk compounds, facilitates the digestion and absorption of the fat. The whole controversy turns on the content of fat soluble A shown by condensed evaporated whole milk and by compound milks, respectively. The difference is 50 per cent. This is admitted by both sides. Incidentally, one may remark this much difference could easily exist between two qualities of whole milk, owing to the difference in the feeding of the cows. A part of Prof. McCollum's evidence—a very impressive part—is, it seems to me, wholly irrelevant

to the question before your committee. I refer to the description on pages 24 and 25 of the printed evidence, in which an impressive picture is drawn of the pellagrous rat, which was illustrated by photographs showing the wretched condition of these animals. I do not know how this evidence affected members of the committee; but I am prepared to say that, if presented to an unprepared audience in the manner in which it was presented to you, the majority of the hearers would suppose that such a condition would result from the feeding of these rats upon milk compounds. No hint to the contrary is found. Yet, in fact, the antipellagrous factor (or vitamine (?)) which prevents this condition is found integrally in the skimmed milk and, therefore, in the milk compounds. Therefore the whole of this passage is irrelevant to the direct question of the utilization of these milk compounds.

The reasons for the choice of the rat for these experiments are multiple. In the first place, this animal is of convenient size and easy to obtain in quantity; but, still more important, he is a very rapid grower and is peculiarly susceptible to variations in the quantity of fat soluble A present in his diet. Both these characteristics of the rat have been strongly emphasized by Prof. McCollum and all of the workers on the subject. Prof. McCollum in his book, The Newer Knowledge of Nutrition, points out that the rat is enormously more rapid growing than the human baby. [fol. 422] At birth the rat weighs less than a third of an ounce. In less than 24 weeks the male rat, properly fed, weighs 9 ounces, or twenty-seven times his birth weight. This extremely rapid growth, and the especial sensitiveness of the rat to a deficiency of vitamine A, would indicate that his demand for vitamine A (which is the vitamine essential for growth) would probably be higher, in proportion to the weight acquired, than the requirement of the human child. But, in order to be on the safe side, we will assume that the human requirement is, proportionately, as high as that of the rat. Now the rat, at the time when he is growing at the rate of 1 gram a day, requires not more than 3 cubic centimeters of milk in his daily ration to maintain normal growth. One gram of growth requires 3 cubic centimeters of milk. The healthy male American child grows in his infancy at an average rate of 27 grams a day. It would therefore appear that his fat soluble A requirements would be

filled by 81 cubic centimeters of milk or less than 3 ounces a day. This amount of fat soluble A is contained in 6 ounces of skimmed milk. Understand, I am speaking of requirements in fat soluble A, and not of energy supplying foods, or of the other vitamines. Now I admit that this calculation is provisional. It is based upon the figures supplied, in various reports of researches, by Hopkins, Mendel, McCollum, and others, and is also based on the emphasis made by all these observers, and notably by McCollum, on the high growth rate of the rat as compared with the human baby. The truth is that the usual solicitude of scientific men to reduce, at the earliest moment, their qualitative discoveries to a quantitative basis has unfortunately been absent from the majority of the researches into this subject. This subject has suffered from the vicious results which always accrue when a scientific discovery has what the journalists call news value, and when it has apparent immediate possibilities of exploitation (not necessarily in bad faith) by some industry. In other words, immature scientific results are sought to be applied too hastily.

Emphasis should also be placed on the fact that fat soluble A is found elsewhere in a mixed diet than in milk. For example, it is present in large quantities in the green vegetables such as spinach, also in tomatoes, as well as in the fatter fishes like salmon and mackerel, and notably in eggs. It is thoroughly well established that vitamine A is not formed by the animal, but is derived by it from its green food. In the absence of an adequate supply of green food the milk of the cow may be deficient in fat soluble A. The milk of woman is often so deficient.

Mr. Davis has asked me to make a comparison between the respective standings, as nutritional experts, of Prof. McCollum and Prof. Lafayette Mendel. It is invidious to make comparisons between living scientific men of such standing, but this far I will go, that among experts on nutrition, including the subject especially before your committee at this moment, none ranks higher in the world than Lafayette Mendel, of Yale.

In conclusion, I venture to submit that, in the present immature state of nutritional science, especially in view of the right-about-face that we have witnessed recently in connection with vitamine A and one of the other vitamines, it would be premature and unsafe to condemn the use of these

milk compounds. The Nucoa Butter Co. and other food manufacturers, who are using coconut oil and skimmed milk as components of their products, are planning important experiments designed to put upon a quantitative basis the food value, including the vitamine value, of their products. It is in this connection that I was called upon to advise them. We have not yet had a sufficient amount of time to develop this work. Until this is done, it is respectfully submitted that judgment should be suspended.

Respectfully, H. O. Nolan.

(Thereupon, at 10 o'clock p. m., the committee adjourned.)

[fol. 423] DEF. EX. No. 24 B FOR IDENTIFICATION

CONGRESSIONAL COMMITTEE REPORTS

HOUSE OF REPRESENTATIVES

67th Congress, 1st Session

Report No. 355

Filled-Milk Legislation

August 19, 1921.—Referred to the House Calendar and ordered to be printed

Mr. Voigt, from the Committee on Agriculture, submitted the following

Report

[To accompany H. R. 8086]

The Committee on Agriculture, to whom was referred the bill (H. R. 8086) to prohibit the shipment of filled milk in interstate and foreign commerce, having considered the same, report it back to the House without amendment, with the recommendation that the bill do pass.

Purpose of the Bill

During the last five or six years the manufacture of so-called filled milk has assumed considerable proportions in this country, and the bill proposes to prohibit the manufacture of this compound in the District of Columbia, the Territories, and insular possessions, and to prohibit its shipment in interstate and foreign commerce. Filled milk

is defined to mean "any milk, cream, or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried, or desiccated, to which has been added, or which has been blended or compounded with any fat or oil other than milk fat, so that the resulting product is in imitation or semblance of milk, cream, or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried or desiccated."

The bill provides a penalty of a fine not exceeding $1,000 or imprisonment for one year, or both, and has the usual [fol. 424] provision that the act, omission, or failure of any person acting for or employed by another, within the scope of his employment or office, shall be the act, etc., of the principal, as well as of the agent or employe.

The Compound

Filled milk is an imitation of condensed or evaporated milk made by mixing condensed skimmed milk and coconut oil. The skimmed milk is reduced by evaporation to about half its bulk, and after this operation there is added from 6 to 8 per cent of coconut fat. The resulting mixture is an exact imitation of pure evaporated or condensed milk; it has the same consistency, the same color, the same taste, and the difference in the two products can only be detected by an expert or by chemical analysis.

The compound can be made more cheaply than the regular article, and, in view of the fact that the imitation is perfect, many people buy it in the belief that they are getting full condensed or evaporated milk. According to the testimony of the leading manufacturer, skimmed milk has recently sold for 35 cents per hundred and refined coconut fat at 12 cents per pound. The cost of a quantity of skimmed milk and coconut fat sufficient to fill 48 1-pound cans of the compound is a little over 80 cents, or less than 2 cents per 1-pound can. The retail price of the 1-pound can is from 10 cents up. The Bureau of Markets gives the following figures of the production of the compound in recent years

	1920	1919	1918	1917
Evaporated, part or full skimmed, modified with foreign fat (case goods)	84,044,000	62,262,225	50,619,163	30,488,262
Evaporated, part or full skimmed, modified with foreign fat (bulk goods)	2,517,000	2,748,120	3,861,097	4,543,640

[fol. 425] In 1920 nearly 8,000,000 pounds of coconut fat were used in the manufacture of filled milk, taking the place of that many pounds of butter fat, injuring the market of the American farmer, and bringing his product in competition with a decidedly inferior product produced by oriental and other cheap labor and handled in many instances under shockingly insanitary conditions.

Fraud on the Public

Filled milk is sold under various trade names, such as "Hebe", "Carolene", "Enzo", "Silver Key", "Nutro", and "Nyko". The manufacturers can not sell it as milk, but it is put up in the same size cans as regular condensed milk, and the evidence before the committee shows that it is advertised by the retail dealers as milk and evaporated milk. Storekeepers sell it with the statements that "it takes the place of milk," "just as good as condensed and much cheaper", "nothing better on the market", "takes the place of condensed milk". Instances have been found in which the coconut fat was mixed with milk and sold for cream; the compound has been used for making ice cream, and recently a company has been formed at Pittsburgh to manufacture an artificial cream from skimmed or fresh milk and coconut fat. The company states in its prospectus, "we can wholesale our Kream for 100 per cent less than cow's cream and still make a profit of over 100 per cent." In many cases retailers sell the compound for the same price as the straight evaporated milk, although the price per 1-pound can to them is about 3 cents less. A number of surveys in various parts of the country show that the compound is sold largely in sections inhabited by people unable to read English and sections inhabited by people of limited means, and not sold at all in better resi- [fol. 426] dential districts. The fact that it is largely sold in the sections mentioned shows that the statements on the label that the article is a compound is not a sufficient protection to the public.

It appears that even the United States Government was defrauded into buying this compound. At Camp Willis, Ohio, in 1913, two carloads of it were furnished at this camp for the use of the troops, and the mess sergeant stated that he had been informed that it was better than milk.

There is ample evidence that the compound is sold at retail as milk, but the interstate shipment can not be prohibited under existing law because the manufacturers label it under a trade name, and not as milk. There is no doubt that the sale of the compound violates the spirit, if not the letter, of the pure food and drugs act. The act provides (sec. 7) that an article of food shall be considered adulterated "if any substance has been mixed and packed with it so as to reduce or lower or injuriously effect its quality or strength", or, "if any substance has been substituted wholly or in part for the article", or, "if any valuable constituent of the article has been wholly or in part abstracted", and shall be considered misbranded (sec. 8) "if it be an imitation of or offered for sale under the distinctive name of another article", but the manufacturers escape under a provision to section 8 that an article shall not be considered adulterated or misbranded, "in the case of * * * compounds * * * under their own distinctive names, and not an imitation of or offered for sale under the distinctive name of another article." * * *

The regulations prescribed by the Department of Agriculture in pursuance to the pure food and drugs act contain the following:

> [fol. 427] Condensed milk, evaporated milk, concentrated milk, is the product resulting from the evaporation of a considerable portion of the water from the whole, fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows * * * and contains, all tolerances being allowed for, not less than 25.5 per cent of total solids, and not less than 7.8 per cent of milk fat.

No reason is perceived by the committee why an exact imitation of or substitute for this article should be permitted to be sold to the public which does not meet these requirements.

Inferiority

Dr. McCollum, of Johns Hopkins University, a high authority on the subject of nutrition, testified before the committee that the vitamines, which are absolutely necessary to promote growth in the human body, are found most abundantly in butter fat, and that milk is the chief article

of food relied upon for the vitamines. Dr. McCullum demonstrated his contentions before the committee by showing photographs of rats which had been fed experimentally on diets with and without butter fat, and the results obtained were astounding. He said:

> There is no question but what milk is the only food for which there is no effective substitute. It is not a question of whether there is some food value in skimmed milk, as to whether we can not get along in some peculiar situation, that one might not get along if a suitable amount of eggs were included in the diet every day. It is not a question whether technically you can bring before a legislative committee of this sort a situation which might work in a satisfactory manner without this food. But this is the point, that we are educated to use milk. We are a people who for hundreds of generations have depended upon dairy products as a prominent article of our diet. We know how to use it, and we like it. We have an agricultural industry which can not remain a permanent one—there can be no permanent system of agriculture without an animal industry to go with it. * * * We have no deposits of phosphorus and no adequate deposits of calcium that will meet the agricultural needs of this country for [fol. 428] fertilizer. * * * There is no similar property [vitamines] in any vegetable oil, including coconut oil and cottonseed oil, comparable with what you find in butter fat. * * * I guarantee that any infant that is fed for a few weeks on one of these milk substitutes will develop rickets. * * * My suggestion is that we do everything that is in our power to maintain at its full tide an industry so important as the dairy industry, and to bring the American cow into competition with a coconut grove is an injustice.

Dr. E. B. Hart, of the University of Wisconsin, says:

> I have already stated in hearings before legislative committees in our own State that at least 90 per cent of the fat soluble vitamin of whole milk is removed in the modern commercial skimming process. This statement is based upon recent experiments in our laboratory, where refinement of control has been perfected, as contrasted with the older experiments made by Dr.

McCollum, which led him to state that there was still about 50 per cent of the fat soluble vitamine in skim milk. Consequently filled milk is not completely devoid of the fat soluble vitamine, but it does not begin to compare with whole milk in respect to its content of this nutritional factor.

In a few years the output of filled milk has grown 5,000 per cent, and the manufacturers frankly stated before the committee that the business is in its infancy. The committee is of the opinion that the traffic in the article should be stopped now, before irreparable injury is done the health of the Nation and before serious damage is done to the dairying industry. The vast dairying industry of this country is absolutely vital to a proper system of agriculture and to maintaining the fertility of the soil.

The farm and dairying organizations are a unit in opposing the manufacture of this compound. If the business grows, as it will without legislative interference, it will mean a decided decrease in the dairy herds of the country. Instead of vast quantities of whole milk being condensed, the butter fat will be extracted and turned into a comparative oversupply of butter. The oversupply will depress [fol. 429] the price, and as the price of milk is regulated by the price of butter fat, the keeping of dairy herds will become less profitable. It is possible that in isolated instances farmers receive more money for their milk where the skimmed milk is manufactured into the substitute, but there can be no question that the introduction of the cheap coconut oil in competition with butter fat is an economic injury to the dairying industry as a whole.

Views of Agricultural Department

Dr. C. W. Larson, chief of the dairy division of the department, appeared before the committee and stated that he considered the manufacture of filled milk to be a slight injury to the dairying industry now, but that it would be a decided injury if the manufacture were to increase; that the use of the compound decreases the use of the product of the cow; that by the manufacture of the compound an additional market is not found for the farmers' product; that he was informed by a manager of a company having 156 stores in Washington that the compound is sold at the

same price and for the same purpose as was regular evaporated milk.

> I believe that in a nation that has one outstanding industry like agriculture in this country it is to the interest of all the people of the Nation to develop and further that industry. I further believe that the dairy industry is vitally connected with our whole agriculture. What I mean by that is that dairying is important from the standpoint of the production of wheat and corn and all our other crops. • • • I think it is desirable and important that that industry be maintained and not injured by some imitation.

Dr. C. F. Langworthy, chief of the office of home economics of the department, stated that he would not object to the compound if its use could be limited to the same use that skimmed milk is put, but that he would not approve of it as a substitute for regular milk, either for infants or adults.

[fol. 430] Other Manufacturers

It is probable that some of the manufacturers of the compound were driven into the business in order to meet competition. Mr. Walter Engels, representing the Borden Co., the largest manufacturer of evaporated milk in the country, stated that—

> His company has always stood for the highest ideals in the production and manufacture and care of milk; and among those ideals is the thought that the public should receive the butter fat in all milk products as the milk comes from the cow. • • • If Congress or the several States do not do something to stop this competition, our company may be compelled as a matter of necessity to meet this competition to go into the manufacture of it, much as they dislike to do so. • • • Some critics have thoughtlessly argued that the manufacturers of the legitimate article should meet this competition by reducing the price to meet it. • • • There is only one way you can meet it, and that is to go in and make it yourself, and I know that some of these other companies do not want to make this stuff. They were dragged into it to meet competition with their legitimate articles. If Congress would stop the

sale of it, I think they would be glad to stop the manufacture of it. * * * The Hebe Co. has applied for registration of its trade-marks in * * * many other countries. * * * That means that they intend to extend this compound business to foreign markets, and when they find out what this stuff is the whole condensed-milk industry is going to get the black eye that the filled-cheese industry got.

For the calendar year 1919 we exported 850,865,414 pounds of condensed milk, and for 1920, 414,250,021 pounds.

Constitutionality

There is nothing new in the proposal that milk products not containing a certain amount of butter fat shall not be transported or sold in interstate or intrastate commerce. Under the pure food and drugs act as it now stands, milk and condensed milk can not be shipped in interstate commerce unless they contain a given percentage of butter fat, and certainly it is proper to insist upon the same standard [fol. 431] in an imitation or substitute article. Congress, by virtue of the pure food and drugs act, has barred from interstate commerce many drugs and articles of food which do not comply with certain standards. It has barred therefrom obscene literature and lottery tickets.

> The power given to Congress by the Constitution over interstate commerce is direct, and without limitation, and far-reaching. Congress may adopt not only the necessary but the convenient means necessary to exercise its power over a subject completely within its power, and such means may have the quality of police regulations.

In the lottery cases (188 U. S., 321) the principle was established—

> That it is equally within the power of Congress in regulating interstate commerce to protect the public morals as it is to protect the public health or the economic welfare of the people. (*Hoke* v. *U. S.*, 227 U. S., 308.)

> Congress not only has the right to pass laws regulating legitimate commerce among the States and with foreign nations, but also has full power to bar from

the channels of such commerce illicit and harmful articles. Congress may itself determine means appropriate to this purpose; and, so long as they do no violence to the other provisions of the Constitution, Congress is itself the judge of the means to be employed in exercising the powers conferred on it in this respect. (*McDermott* v. *Wis.*, 228 U. S., 115.)

Congress is not to be denied the exercise of its constitutional authority over interstate commerce and of its power to adopt means necessary and convenient to such exercise merely because those means have the quality of police regulations. (*Eckman Alterative Case*, 239 U. S., 510.)

An Ohio statute forbids the manufacture and sale of condensed milk unless made from unadulterated milk from which the cream has not been removed and in which the milk solids are equivalent to 12 per cent of those in crude milk and 25 per cent of them fat, and skimmed milk is permitted to be sold only under certain restrictions. The secretary of agriculture of Ohio in 1918 threatened pros- [fol. 432] ecutions for the sale of Hebe filled milk, and the Hebe Co. brought a suit in equity in the United States District Court in Ohio to restrain the prosecutions. The case went to the United States Supreme Court. (248 U. S., 297.) The court held that the Hebe product fell within the condemnation of the statute; that the statute was a valid exercise of the police power of the State, and that no constitutional right of the Hebe Co. was infringed. The court says:

But the statute could not direct itself to the product as distinguished from the name more clearly than it does. You are not to make a certain article, whatever you call it, except from certain materials, the object plainly being to secure the presence of the nutritious elements mentioned in the act and to save the public from the fraudulent substitution of an inferior product that would be hard to detect. * * * It seems entirely clear that condensed skimmed milk is forbidden out and out. But if so, the statute can not be avoided by adding a small amount of coconut oil. We may assume that the product is improved by the addition, but the body of it is still condensed skimmed milk, and this improvement consists merely in making

the cheaper and forbidden substance more like the dearer and better one and thus at the same time more available for a fraudulent substitute. It is true that so far as the question of fraud is concerned the label on the plaintiff's cans tells the truth—but the consumer in many cases never sees it.

Legislation in Various States

While the proposed bill will not prohibit the manufacture and sale of the compound within the limits of a State, the committee is of opinion that a law prohibiting interstate shipment will suppress it, because a sufficient market can not be found without such shipment, and also because a sufficient milk supply can not be found in many States which would warrant engaging in the enterprise.

Furthermore, quite a number of States have already passed laws outlawing the compound. Wisconsin recently passed a law making it unlawful to manufacture it. Utah, [fol. 433] Maryland, Florida, California, Colorado, Connecticut, and Oregon have laws either suppressing the compound or providing such stringent regulations as to make its sale impossible. In New York both houses of the legislature passed similar bills, but it failed to go to the governor. In New Jersey a similar bill was vetoed by the governor. In Pennsylvania a bill was passed by the house but died in the senate committee. Ohio has had a law for many years under which the compound was suppressed, and this year a resolution was adopted by the board of health of the City of New York to the same effect. The department of health—

> Takes this position for the reason that coconut oil does not possess the food value that butter fat possesses and the substitution of same for any milk product would undoubtedly be reflected in the health of the children of this city. Coconut oil is no substitute for milk. Coconut oil does not possess the same growing qualities found in the butter fat of milk, and any legislation which would permit the addition of coconut oil to any milk product would be opposed to the best interests of the people of the city. * * * The board of health of this city has adopted a standard for ice cream in which the use of coconut oil or vegetable fats is prohibited.

Minority Views

As a member of the Committee on Agriculture, I earnestly dissent from the view of the majority of said committee as expressed in the report filed herein on H. R. 8086.

The testimony before the committee in extensive hearings proved conclusively that—

1. The "filled milk" complained of, composed of skim milk and vegetable oil, is not unwholesome, deleterious, or injurious to health, but a wholesome and nutritious food. To this statement the proponents of the bill agree.

[fol. 434] 2. "Filled milk" is properly, clearly, and plainly labeled in compliance with ample existing law, indicating distinctly the uses for which the food is recommended.

3. "Filled milk" is about 3 cents a can cheaper than whole milk, offering an opportunity for thousands of American people limited in finance to purchase this wholesome food at prices within their reach, when the world demand is to reduce the cost of necessities.

4. The manufacture of "filled milk" does not injure the dairy business, but, on the contrary, last year created a market for 200,000,000 pounds of skim milk which formerly had no market value whatever.

It would be monstrous for the Congress, as proposed by this bill, to legislate out of existence any legitimate business, heedless of the millions honestly invested.

This bill is of doubtful constitutionality. If the retailers practice any deception the remedy is regulation of the distributors and not destruction of private business.

Believing that the Government should not destroy any legitimate business, that there is no demand for this legislation except from those selfishly interested in removing competition, and that the sentiment of the public is in harmony with these views, I recommend that this bill be not passed.

J. B. Aswell.

[fol. 435] DEFENDANTS' EXHIBIT 25-B (For Identification)

By Mr. Voigt: A bill (H. R. 6215) to amend an act for preventing the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines, and liquors, and for regulating traffic therein, and for other purposes, approved June 30, 1906, as amended; to the Committee on Agriculture.

[fol. 436] Filled Milk

Mr. Haugen: Mr. Speaker, I call up the bill H. R. 8086.

The Speaker: The gentleman from Iowa calls up the bill H. R. 8086. The Clerk will report it.

The Clerk reads as follows:

A bill (H. R. 8086) to prohibit the shipment of filled milk in interstate or foreign commerce.

Be it enacted, etc., That whenever used in this act—

(a) The term "person" includes an individual, partnership, corporation, or association;

(b) The term "interstate or foreign commerce" means commerce (1) between any State, Territory, or possession, or the District of Columbia, and any place outside thereof; (2) between points within the same State, Territory, or possession, or within the District of Columbia, but through any place outside thereof; or (3) within any Territory or possession, or within the District of Columbia; and

(c) The term "filled milk" means any milk, cream, or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried, or desiccated, to which has been added, or which has been blended or compounded with, any fat or oil other than milk fat, so that the resulting product is in imitation or semblance of milk, cream, or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried, or desiccated.

SEC. 2. It shall be unlawful for any person to manufacture within any Territory or possession, or within the District of Columbia, or to ship or deliver for shipment in interstate or foreign commerce, any filled milk.

SEC. 3. Any person violating any provision of this act shall upon conviction thereof be subject to a fine of not more than $1,000 or imprisonment for not more than one year, or both; except that no penalty shall be enforced for any such violation occurring within 30 days after this act becomes law. When construing and enforcing the provisions of this act, the act, omission, or failure of any person acting for or employed by any individual, partnership, corporation, or association, within the scope of his employment or office, shall in every case be deemed the act, omission, or failure of such individual, partnership, corporation, or association, as well as of such person.

Mr. Jacoway: Mr. Speaker, how much time does the gentleman from Iowa propose for discussion?

Mr. Haugen: Mr. Speaker, I ask unanimous consent that the bill be considered in Committee of the Whole House on the state of the Union; and pending that, I ask that the general debate be limited to—what time would the gentleman from Arkansas suggest?

[fol. 437] Mr. Jacoway: I would suggest one hour and a half for each side.

Mr. Haugen: I ask unanimous consent that the debate be limited to three hours, one half to be controlled by the gentleman from Arkansas [Mr. Jacoway] and the other half by the gentleman from Wisconsin [Mr. Voigt].

The Speaker: The gentleman from Iowa asks unanimous consent that this bill be considered in Committee of the Whole House on the state of the Union and that the general debate be limited to three hours, one half to be controlled by the gentleman from Arkansas [Mr. Jacoway] and the other half by the gentleman from Wisconsin [Mr. Voigt]. Is there objection?

There was no objection.

The Speaker: The gentleman from New York will please take the chair.

Thereupon the House resolved itself into Committee of the Whole House on the state of the Union for consideration of the bill H. R. 8086, with Mr. Hicks in the chair.

The Chairman: The House is in Committee of the Whole House on the state of the Union for the consideration of the bill H. R. 8086, which the Clerk will report.

The bill was again read.

The Chairman: Under the order of the House, the time on this debate is limited to three hours, one half of the time under the control of the gentleman from Wisconsin [Mr. Voigt] and the other half under the control of the gentleman from Arkansas [Mr. Jacoway]. The Chair recognizes the gentleman from Wisconsin.

Mr. Voigt: Mr. Chairman, I yield myself 15 minutes.

The Chairman: The gentleman from Wisconsin is recognized for 15 minutes.

Mr. Voigt: Mr. Chairman and gentlemen, the object of this bill which I have introduced is to exclude from interstate and foreign commerce, and to prevent the manufacture of, in the District of Columbia and in the Territories and possessions, an article which is known as filled or oiled milk.

Filled milk is a compound ~~or imitation~~ of milk which has come onto the market in the United States during the last five or six years. The article consists of a combination or compound of condensed skimmed milk and cocoanut oil. The manufacture of this article is carried on in the same factories where the ordinary evaporated or condensed milk is made; that is, some of the same people in the country that are making evaporated milk are manufacturing this product as a side line, and the manufacture of the substitute has assumed such alarming proportions in the last few years that something should be done to curb it.

The sale of this article is a fraud upon the public, and it is a fraud upon the men who are engaged in the milk and dairy business and in the manufacture of legitimate condensed and evaporated milk. These people who are making this product take the whole milk as it comes from the farmer and separate it, take out the cream, which is the valuable constituent, then condense the skimmed milk to about one-half of the volume, and add coconut oil equal to the quantity of butter fat removed. The resulting mixture, when the coconut oil and condensed skimmed milk are emulsified and combined in the factory, is an exact imitation of evaporated milk. It looks and tastes exactly like evaporated milk, and the consumer can be easily defrauded into buying it for the genuine article.

Mr. Johnson of Mississippi: Mr. Chairman, will the gentleman yield?

Mr. Voigt: Yes.

Mr. Johnson of Mississippi: Is that milk injurious or unwholesome or deleterious to health?

Mr. Voigt: I will say that the filled milk is not a poisonous product, but it is a fraudulent product, in that the consumer is not getting what he thinks he is buying. The evidence adduced before our committee was overwhelming that the filled milk was sold on the shelves of the retailers side by side with the genuine article, and in most cases it was being sold for the same price. I object to filled milk not so much for what is in it as for what is not in it.

Milk is by far the one most important food article which we have. There is no substitute for milk, and the general health of our people would be immensely benefited if we consumed three or four times as much milk and cheese as we actually do. We can not gain anything by permitting people to put a fraudulent substitute for milk on the market.

Mr. Walsh: Mr. Chairman, will the gentleman yield for a question?

Mr. Voigt: Yes.

Mr. Walsh: Did the committee hold any hearings on this bill, H. R. 8086?

Mr. Voigt: I will say to the gentleman that originally I introduced the bill H. R. 6215, which was an amendment to the pure food and drugs act. That bill I submitted to the Secretary of Agriculture and he objected to it because he did not approve of specifying any particular food product in the pure food and drugs act. But representatives of the department appeared before the committee and expressed themselves in favor of legislation to curb the production and sale of filled milk. Then, after the hearings were completed, I redrafted the bill in its present form. The subject matter of both bills is the same. I think that will answer the gentleman's question.

Mr. Walsh: This bill is the result of the hearings, but no hearings have been held on this particular bill?

Mr. Voigt: This bill was drafted after the hearings were closed. It was not necessary to hold further hearings, because the difference in the bills is largely a matter of form. No one requested additional hearings.

Mr. Johnson of Mississippi: If this filled milk is not injurious, deleterious, or unwholesome to health, in view of the first child-labor law decision, what constitutional authority have you for prohibiting its shipment in interstate commerce?

Mr. Voigt: I do not concede that this filled milk is not injurious. I shall speak of the constitutional question later on.

Mr. Johnson of Mississippi: That is why I asked the question a while ago.

Mr. Voigt: If a small quantity of filled milk is consumed by an adult person it will not injure him any more than if he consumes a mixture of half milk and half water. But the gentleman will concede that he would not approve of permitting anybody to sell such a mixture. Filled milk is positively injurious to children and will affect the health of an adult if he uses it in place of milk.

Mr. Johnson of Mississippi: That suggests this question: Can we not remedy that by requiring the manufacturers to place on the container a statement of the constituent elements of the filled milk?

Mr. Voigt: A statement of the constituent elements is now placed upon the container, but the difficulty is that the manufacturers of this article put this filled milk into a container of the same size and style as the other, and it is put on the shelves in retail stores side by side with the genuine product, and the testimony offered before the committee was overwhelming that when people went in and asked for evaporated milk, or for a can of milk, in many cases they were handed this fraudulent substitute, which costs the retailer about 3 cents per can less.

Mr. Johnson of Mississippi, Mr. Newton of Minnesota, and Mr. Dowell rose.

Mr. Voigt: I shall yield for a brief question, but I must proceed with my statement.

Mr. Johnson of Mississippi: Is that the reason for not shipping in interstate commerce?

Mr. Voigt: That is one of the reasons.

Mr. Johnson of Mississippi: Will the gentleman tell us the others?

Mr. Voigt: I am trying to tell the committee as rapidly as I can speak what the bill is about and what the objections are to this substitute.

Mr. Dowell: Just one question. What about the nutrition in filled milk as compared with pure milk?

Mr. Voigt: I intend to speak about that. I will say to the gentleman that Doctor McCollum, of Johns Hopkins University, who is probably the greatest expert on nutrition in the world, has conducted something like 4,000 feeding experiments on animals, and he finds that if rats, for instance, are fed on such articles as you would have on your table, good wholesome food, but are left without milk and are fed on this filled milk, they will die of disease in a very short time. The vitamines which have been found so necessary for the growth of infants and children and for the grown body as well are absent from this filled milk.

Mr. Dowell: It is not fair to put it in competition with pure milk, as to the nutritious qualities of it?

Mr. Voigt: Absolutely not. The vital, growth-producing, health-giving elements of milk known as the vitamines are almost wholly lacking in this substitute. Coconut oil contains no vitamines, nor does any other vegetable oil.

Mr. Lazaro: Will the gentleman yield?

Mr. Voigt: I yield briefly to the gentleman from Louisiana.

Mr. Lazaro: Just for a short statement. While the filled milk does not contain any poison, if an ignorant person goes to the store and buys a can of filled milk and feeds it to his children and does not know that his children are getting milk that contains no elements of nutrition his children are being poisoned in an indirect way.

[fol. 438] Mr. Voigt: That is the point exactly. Anyone feeding this article to children with the idea that they are getting evaporated milk is seriously imperiling their health. A child fed on this substitute will develop rickets, and eye disease, and is liable to tuberculosis, because that child is not getting the nutrition contained in normal whole milk.

Mr. Newton of Minnesota: Will the gentleman yield?

Mr. Voigt: I will yield briefly to the gentleman.

Mr. Newton of Minnesota: I have been very much interested in the pamphlet sent out based upon the experiments made by Professor McCollum, of Johns Hopkins. It shows that rats fed with this filled milk develop eye trouble. I am wondering if before the committee there was any contention made by anyone disputing the conclusions and findings of Professor McCollum?

Mr. Voigt: No, sir.

Mr. Newton of Minnesota: So that the record stands undisputed.

Mr. Voigt: The report which the gentleman has in his hand as to these experiments is absolutely undisputed. If you will read this pamphlet you will learn just how Professor McCollum made these experiments. There was some question raised in the committee, and the gentleman from Louisiana [Mr. Aswell] asked Doctor McCollum if he would experiment on rats with filled milk. Doctor McCollum made that experiment and here is the result of it. [Showing picture.] It shows that if rats are fed on good food, such as bread and beefsteak and articles that you would eat at your table, but instead of milk are fed this filled milk, they will rapidly decline and die of disease in a very short time. Here in this pamphlet are the pictures of two rats of equal age that were taken at the same time. One of them was fed on evaporated milk and the other fed on filled milk, but otherwise their diet remained the same. This rat on the right was fed the substitute and in something over 100 days grew to only one-half the size of the other one besides contracting a fatal eye disease which killed it. Take a look at this picture and you will see the bright eye of the rat fed on legitimate evaporated milk and then look at the other one.

Mr. Butler: Will the gentleman yield?

Mr. Voigt: I will.

Mr. Butler: I am sure that if I were a rat I would not want to be fed on this substitute. Has the gentleman the result of any experiments on a human being?

Mr. Voigt: I have learned of some cases where children were fed by the parents on filled milk and that physicians found them in very poor condition.

Mr. Butler: It failed to nourish the children?

Mr. Voigt: Yes, and developed disease in them; but when the children were fed on a good milk diet they recuperated rapidly.

Mr. McClintic: Will the gentleman yield?

Mr. Voigt: Yes.

Mr. McClintic: Was there any testimony from farm organizations as to the effect that this legislation will have if it is enacted into law?

Mr. Voigt: I will say that every farm organization that has a representative in the city of Washington is for this bill.

Mr. Williamson: Will the gentleman yield?

Mr. Voigt: I will.

Mr. Williamson: Is it not a fact that this filled milk is sold largely to the poor and ignorant; for instance, on the East Side of New York, where they are not educated in the grades of milk?

Mr. Voigt: Yes. Some of the organizations that are interested in this legislation sent out observers in the city of Philadelphia and in my State of Wisconsin, and they found that in the good residential sections of cities, where people were able to read the labels, it was not sold, but they found it in the stores patronized by the less well to do and foreigners. In some instances it has been found in the homes of intelligent people, who never read the label.

Mr. Raker: Will the gentleman yield?

Mr. Voigt: I will.

Mr. Raker: In the bill in line 8, page 2, you use the words "powdered, dried, and desiccated." What is the difference between those three terms?

Mr. Voigt: There is no difference; these words are used interchangeably by the trade. The idea is to cover all forms of milk.

Mr. Raker: The bill provides that if there is any fat whatever added to the powdered, dried, or desiccated milk, or other form of milk, even though there is no substance taken from the milk before it is dried, the bill applies. Suppose you took 10 gallons of milk and dried it as they do in California, if you put any fat at all into it the bill applies to that.

Mr. Voigt: Yes. The bill prohibits the shipment of any form of milk which has been in any way adulterated with oil or fat, except butter fat that comes from the cow. That is necessary for this reason: It was discovered that in the city of New York men took milk and added coconut oil because it gave it a creamy consistency and sold the article for cream. There was a concern organized in Philadelphia to manufacture this so-called cream.

Mr. Raker. Take the cream without any dilution, evaporate it so that it is dried powder; now, if you put in any sort of material, if you put in any fat except butter fat,

under this bill it would be prohibited from interstate commerce.

Mr. Voigt: Yes.

Mr. Raker: Did the committee find out that any addition to the natural cream dried was unhealthy?

Mr. Voigt: We did not find that that method was being pursued. I do not know of any manufacturer in the United States who is doing that. The people who are using coconut oil are using it as a substitute for butter fat in milk. They are not using it except for the purpose of making milk appear as cream, or skimmed milk as evaporated milk.

Mr. Raker: This is intended to cut off the fraud?

Mr. Voigt: It is.

Mr. Smith of Michigan: Will the gentleman yield?

Mr. Voigt: Certainly.

Mr. Smith of Michigan: What other ingredients do they use to adulterate milk besides coconut oil?

Mr. Voigt: I understand occasionally a small amount of peanut oil is used, but that is rather negligible.

There is a great incentive on the part of the retailer to sell this in preference to the genuine. The evidence before the committee showed that the ingredients in a pound can of this substitute cost the manufacturer a fraction less than 2 cents, whereas the milk for a pound of legitimate evaporated milk costs about 3 cents more.

Mr. Butler: Will the gentleman yield?

Mr. Voigt: Yes.

Mr. Butler: Is there no law existing by which that fraud can be avoided?

Mr. Voigt: No.

Mr. Butler: And it requires a bill of this kind?

Mr. Voigt: Absolutely: I will say that I think the spirit of the pure food law covers this article, but the manufacturers escape by using a trade name instead of calling it milk. The act provides that an article of food shall be considered adulterated—

if any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength—

Or—

if any substance has been substituted wholly or in part for the article—

Or—

if any valuable constituent of the article has been wholly or in part abstracted—

And shall be considered misbranded—

if it be an imitation of or offered for sale under the distinctive name of another article.

But the manufacturers escape under a proviso to section 8 that an article shall not be considered adulterated or misbranded—

in the case of * * * compounds * * * under their own distinctive names, and not an imitation of or offered for sale under the distinctive name of another article.

The manufacturers use the same size cans as for evaporated milk, and put on such names as "Hebe," "Carolene," "Enzo," "Silver Key," "Nutro," and "Nyko."

Mr. Lazaro: Will the gentleman yield?

Mr. Voigt: Yes.

Mr. Lazaro: How much peanut oil is used in the preparation with the coconut oil?

Mr. Voigt: A very small quantity; I do not know how much. The manufacturers of the substitute extract the cream and take the same quantity of coconut oil to replace it. For instance, they will take out of the milk 7 or 8 per cent butter fat and then substitute 7 or 8 per cent by weight of coconut oil. The butter fat extracted from the milk is worth 40 or 50 cents a pound, while coconut oil can be purchased for from 8 to 10 cents a pound.

Mr. Norton: Mr. Chairman, will the gentleman yield?

Mr. Voigt: Yes.

Mr. Norton: Are not all of these cans labeled with exactly what they contain?

[fol. 439] Mr. Voigt: Yes; but they are labeled in a fraudulent way, because they do not tell the consumer that the valuable part of the milk has been extracted.

Mr. Norton: But they do tell exactly what is contained in it.

Mr. Voigt: From a technical standpoint they do, but there is not one individual in ten thousand, after he sees the label, who knows what is in the can.

Mr. Smith of Michigan: These things are in fine print.

Mr. Voigt: I have here a full-page advertisement of "Nutro" in the Chicago Tribune. This advertisement says:

Nutro is a delicious and nutritious new milk product. It is prepared in the rich dairying districts of Wisconsin and Indiana, and made of pure, fresh cow's milk with the animal fats extracted and essential food values replaced by a refined, rich, sweet, purely vegetable coconut fat.

Nutro is pure, delicious, wholesome. It is prepared in model condenseries from pure cow's milk evaporated to double strength, with the animal fats extracted and then enriched with sweet, edible, highly refined coconut fat.

I submit that the reader gets the impression that Nutro is a better article than evaporated milk. Butter fat is referred to as "animal fat," and it is claimed that pure cow's milk is evaporated to double strength.

The manufacture of this compound has been growing at an alarming rate, as will appear from the following figures furnished by the Bureau of Markets:

	1920	1919	1918	1917
Evaporated, part or full skimmed, modified with foreign fat (case goods)	84,044,000	62,262,225	50,619,163	30,488,262
Evaporated, part or full skimmed, modified with foreign fat (bulk goods)	2,517,000	2,748,120	3,861,097	4,543,640

In 1920 nearly 8,000,000 pounds of coconut oil were used in the manufacture of the compound, taking the place of that many pounds of butter fat sorely needed for the nutrition of our people and injuring the market of the American farmer. It is unfair to our farmers to put them into competition with this inferior product produced by oriental labor and handled by very unclean methods. The manufacturers of filled milk stated before the committee that the business was in its infancy, and it is high time that it is wiped out altogether.

The argument is made that filled milk is a poor man's food because it is sold for less money than the genuine article. There is nothing to this argument, because the evidence shows that in very many stores the two articles are sold for the same price. But assuming that the poor man can buy a can of this stuff for 8 cents when he would have to pay 10 or 11 cents for evaporated milk, he is defrauded nevertheless, because he is not getting 8 cents' worth and is probably injuring the health of his family.

The superiority of the white race is due to at least some extent to the fact that it is a milk-consuming race. Natives of tropical countries who use the products of the coconut are stunted in body and mind. I believe that one reason why they are inferior is that they do not use the milk of cows or other animals. We owe a great deal to the dairy cow, a great deal more than the general public gives her credit for. We can not afford to injure the dairy industry; if we do it, we injure the Nation. The dairy industry not only supplies us with an absolutely necessary article of food but it maintains the fertility of our soil, and anything that we do to encourage the dairy industry is a direct benefit to the Nation. Doctor McCollum testified as follows before our committee:

There is no question but what milk is the only food for which there is no effective substitute. It is not a question of whether there is some food value in skimmed milk, as to whether we can not get along in some peculiar situation, that one might not get along if a suitable amount of eggs were included in the diet every day. It is not a question whether technically you can bring before a legislative committee of this sort a situation which might work in a satisfactory manner without this food. But this is the point, that we are educated to use milk. We are a people who for hundreds of generations have depended upon dairy products as a prominent article of our diet. We know how to use it, and we like it. We have an agricultural industry which can not remain a permanent one—there can be no permanent system of agriculture without an animal industry to go with it. * * * We have no deposits of phosphorous and no adequate deposits of calcium that will meet the agricultural needs of this country for fertilizer. * * * There is no similar property—vitamines—in any vegetable oil, including coconut oil and cottonseed oil, com-

parable with what you find in butter fat. * * * I guarantee that any infant that is fed for a few weeks on one of these milk substitutes will develop rickets. * * * My suggestion is that we do everything that is in our power to maintain at its full tide an industry so important as the dairy industry, and to bring the American cow into competition with a coconut grove is an injustice.

This bill has been indorsed by hundreds of dairying and farming organizations, by organizations of consumers, and others who are interested in the welfare of the people. It is also indorsed by practically every dairying and farming publication in the United States. Some of the leading organizations indorsing it are as follows:

National League of Women Voters.
National Congress of Mothers and Parent-Teachers' Associations.
National Grange.
American Farm Bureau Federation.
National Board of Farm Organizations.
Farmers' Educational and Cooperative Union of America.
Farmers' National Congress.
National Agricultural Organization Society.
National Conference on Marketing and Farm Credits.
National Dairy Union.
Pennsylvania Rural Progress Association.
Farmers' Society of Equity.
Federation of Jewish Farmers of America.
American Association for Agricultural Legislation.
Intermountain Farmers' Association.
Farmers' Equity Union.
American Society of Equity.
National Milk Producers' Federation.
Dairymen's League (Inc.) and Dairymen's League Cooperative Association (Inc.). (Largest in the world.)
New England Milk Producers' Association, Woodbury, Conn.
Interstate Milk Producers' Association.
Maryland and Virginia Milk Products' Association.
The Milk Producers' Association of the Chicago District.
Dairymen's Cooperative Sales Co.
National Agricultural Conference.

National Dairy Council.
American Jersey Cattle Club.
Milwaukee Milk Producers' Association.
Wisconsin State Union, American Society of Equity.
Northeastern Dodge County Cow Feeding Association, of Wisconsin.
Cheese Producers' Federation, of Plymouth, Wis.
Wisconsin Dairymen's Protective Association.

The Legislature of Wisconsin at its 1921 session passed a joint resolution memorializing Congress to pass the Voigt bill.

Some question has been raised as to the constitutionality of this bill. I have given this matter very careful consideration and have also had the benefit of the advice of competent lawyers. Judge J. W. Bryan, of Baltimore, an authority on constitutional law, in an exhaustive opinion, declares the bill constitutional. I can not take the time to discuss the legal question, but refer anyone interested to the following decisions:

Lottery Cases (188 U. S. 321).
Hoke *v.* United States (227 U. S. 308).
McDermott *v.* Wisconsin (228 U. S. 115).
Eckman Alterative Cases (239 U. S. 510).
Hebe Case (248 U. S. 297).

Quite a number of States have already passed laws outlawing or imposing severe restrictions on the sale of filled milk. Such States are Utah, Maryland, Florida, California, Colorado, Connecticut, Oregon. New York and New Jersey have very recently passed laws prohibiting its manufacture and sale. Wisconsin passed such a law at the last session of the legislature. This law is now being tested in the Supreme Court, and I have no hesitation in saying that its constitutionality will be upheld. There are prospects of further State legislation. It is the judgment of all dairying and farm organizations represented in Washington that with the State legislation and the enactment of this bill into law we shall have a remedy which will effectually outlaw filled milk.

[Note.—The bill passed the House on May 25, 1922, by a vote of 250 to 40.]

Mr. Jacoway: Mr. Chairman. I yield 20 minutes to the gentleman from Louisiana [Mr. Aswell].

Mr. Aswell: Mr. Chairman, it is discouraging to me to see so good a man as the gentleman from Wisconsin [Mr. Voigt] permit himself to be used in behalf of such flagrant, sectional, vicious class legislation as that which is proposed by this bill. If I were in favor of this sort of legislation I could not support the bill because unquestionably it is unconstitutional. Its proposals are monstrous. The gentleman from Wisconsin in his closing remarks made the amazing statement that this milk compound is so labeled that not one person in 10,000 could read it and understand what it means. I hold in my hand a can of the so-called filled milk. This is the Hebe compound. This is made of peanut oil and skim milk. Six months ago when the hearings were being held on this question it appeared that generally coconut oil was used. I then made a request of the manufacturers of these milk compounds to experiment in their chemistry departments to ascertain whether our domestic oils could be used. They have experimented with peanut oil, cottonseed and sunflower seed. They made a perfect success of the peanut and the cottonseed oils, and are still experimenting with the sunflower oil. I used this particular can which I hold in my hand for baking purposes in my home during the past week to test it. It is a perfect milk compound of peanut oil and skim milk. The gentleman is mistaken about the label. There could not be any fraud. This is the label, and you can read it across the room.

[fol. 440] Mr. Voigt: Mr. Chairman, will the gentleman yield?

Mr. Aswell: In a moment. The label states that it is a compound of evaporated skimmed milk and vegetable fat; that it contains 7.8 per cent of vegetable fats, 25 per cent total solid. Then the label in letters that you can read from your seats says that it is for cooking and baking, and then we find the statement in large letters, "Do not use in place of milk for infants." Every can has that label under the present pure food law, and where any deception or fraud could be practiced is beyond my comprehension. I yield to the gentleman from Wisconsin.

Mr. Voigt: Is that a can of the Hebe milk?

Mr. Aswell: Yes.

Mr. Voigt: Was it not testified before the Agricultural Committee that the manufacturers of this very product had changed their label about six or seven times?

Mr. Aswell: They may have changed it in the development of their product, but this is the established label now adopted by that company.

Mr. Burtness: Was that portion of the label which warns against the use of the contents as a substitute for milk for infants on former labels?

Mr. Aswell: It was.

Mr. Burtness: It is the gentleman's contention that it has been put on the label of the product of this company from the beginning?

Mr. Aswell: I have not followed the history of it from the beginning, but since it has been developed into a real business, prosperous enough to put the fear of the Lord into the Butter Trust, it has had that label.

Mr. Voigt: I hold in my hand a can of this compound, and it does not contain any such statement on its label.

Mr. Aswell: That might be before they had established and developed the business, but we are dealing with the present. In an open fight for the right why do you not come away from ancient history?

Mr. Rankin: Mr. Chairman, if the gentleman will yield, I see now that the gentleman from Wisconsin has found that the label is on the can.

Mr. Raker: Where did the gentleman get the information that this is peanut oil?

Mr. Aswell: With the permission of the House, I would like to file a letter in respect to that. I had the experiment made.

PEANUT OIL USED

CHICAGO, *April 22, 1922.*

MY DEAR MR. ASWELL: Immediately following the hearing before the House Committee on Agriculture at Washington last summer on the Voigt bill, and in line with your suggestion, our laboratory began to experiment with peanut oil in the manufacture of an evaporated skimmed-milk compound.

In the manufacture of such a compound it is imperative that the vegetable fat used be absolutely neutral as to flavor and odor. After exhaustive inquiries we found that a peanut fat which would fit our requirements was not obtain-

able—not even in small amounts necessary for making laboratory experiments. We then proceeded to equip our laboratory with the apparatus necessary to refine peanut fat to a point where the objectionable flavors of the peanut had been practically eliminated. As soon as this had been accomplished, and we were able to produce a higher refined fat than was obtainable from the refiners of peanut oil, we commenced to manufacture a compound in the laboratory with the peanut fat, and we found our path beset with many difficulties which could only be solved by continuous experimentations, all of which consumed much time.

After we had produced a satisfactory product in the laboratory, it was then necessary to manufacture a batch of the new product on factory scale and hold this batch in our warehouse for several weeks to ascertain if the finished product on aging would develop any flavors which would make it unfit for commercial use.

As I advised you in my night letter of yesterday, we are satisfied that we have produced a satisfactory product, and that this belief will be fully confirmed on the termination of our experiments, which should be concluded in the next month or two.

The referee appointed by the Supreme Court of the State of Wisconsin to take testimony in the case brought by this company to test the constitutionality of the law which prohibited the manufacture and sale of Hebe, passed last summer by the legislature of that State, found from the evidence that Hebe is a wholesome and nutritious article of food for adults and children in the same sense that bread, meat, and potatoes are wholesome. He also found there was nothing deleterious to health in the product.

You will be interested in knowing, I am sure, that Professor McCollum, who appeared before this committee on the hearings on the Voigt bill, was the star witness for the State in this case.

No exceptions were taken by the State to the findings of the referee as reported by him to the supreme court. This case was argued before the supreme court on April 15, but no decision has been handed down as yet. We look for a decision on or about May 7.

As Hebe is an admittedly wholesome nutritious article of food, honestly labeled, and economical in its use, there would seem to be no just basis for denying to it the channels of interstate commerce.

The argument which has been freely advanced by the proponents of the bill that the legislation is fully justified for the reason that the dairy farmer should not be compelled to compete with the "coconut cow" of the South Sea Islands, has been rendered ineffective by reason of our discovery that a commercially successful product can be produced by substituting peanut fat for coconut fat.

It needs no argument to substantiate the statement that this new use discovered for peanut fat will give the peanut industry in this country a great impetus and contribute materially to the prosperity of that section of the country which grows peanuts. It is difficult to believe that Congress would pass a bill, the effect of which would be to benefit the producers of a raw material produced in one section of the country to the detriment of producers of a raw material in another section.

If the product was not a wholesome, nutritious article of food, and was not being advertised, labeled, and sold for what it really is, we would have no right to protest against the proposed legislation, but it does seem that the power of Congress should not be directed against us for the sole reason that the class of people engaged in the manufacture of a competing production have an ambition to destroy competition.

* * * * * * *

With the assurance of my continued high personal regard, I am

Yours truly, Paul R. McKee.

Mr. Raker: The gentleman says that the bill is unconstitutional. Upon what grounds?

Mr. Aswell: Because the bill starts out with the blunt statement that milk compounds shall be prohibited from being manufactured and shipped through interstate commerce, and gives no reason whatever for it. No claim is made that filled milk is unwholesome or injurious to health, nor that it is sold fraudulently. Its provisions are ridiculous.

Mr. Voigt: Mr. Chairman, will the gentleman yield?

Mr. Aswell: Yes.

Mr. Voigt: Did the gentleman or any other member of the committee raise that point while the hearings were being held? Did the gentleman then claim that the bill was unconstitutional?

Mr. Aswell: I did, and I put it in my minority report: I am sorry you have not studied it.

Mr. Voigt: Was the question raised in the committee?

Mr. Aswell: Absolutely. I raised it myself.

Mr. Voigt: I do not recall it.

Mr. Aswell: Mr. Chairman, this proposed bill on the subject of filled milk, which has been discussed by the gentleman from Wisconsin, is to my mind a very serious one, because it involves the fundamental principles of government. I think most of the gentlemen on the Republican side in the last campaign made the solemn pledge to the American people that there would be less government in business. The purpose of this bill is not only to put the Government in business, but to put the Government into the business of putting out of business legitimate business. I want to make an assertion and prove it by the hearings, that the proponents of this bill, namely, the dairy interests of certain sections of the country, have one definite purpose, and that is to remove competition from their own business. In the hearings a Mr. Larson, of the Department of Agriculture, advocating the bill and speaking for the Butter Trust, made an amazing admission. After a long and tedious hearing the following occurred:

Mr. Aswell: Then, according to your statement, if these gentlemen would promise not to increase their business you would not object to their manufacturing what they are manufacturing?

Doctor Larson: From the standpoint of that principle?

Mr. Aswell: If they would promise not to increase it any, you would be satisfied?

Doctor Larson: If they did not increase it, from the standpoint of the dairy industry it would not be a serious thing. As I said before, they are making 85,000,000 pounds of this product to-day, and we are producing 1,500,000,000 pounds or more of evaporated milk. But the point is, it is growing so very rapidly.

This whole question is an effort to have the Congress step in and protect the private dairy business by shutting out their competitors in other legitimate business. It is monstrous that the Congress should be asked to destroy business in which millions of dollars have been invested, merely for the purpose of more profit to the dairy business competing with them. The purpose of the bill is to shut

out competition with the dairy industry, which has here the most powerful organized lobby in the world.

Mr. Raker: Mr. Chairman, will the gentleman yield?

Mr. Aswell: Yes.

Mr. Raker: The gentleman read certain matter from the label on the can. The gentleman from Wisconsin [Mr. Voight] said that he had a can of this milk in his hand which did not have that on the label.

Mr. Aswell: Oh, he admitted later that he found it there.

Mr. Raker: Was it on the gentleman's can, I will ask him?

Mr. Voigt: Will the gentleman yield to me for a moment?

Mr. Aswell: Oh, the gentleman found it on his can. I want to answer the gentleman from Wisconsin now for a moment in respect to his rat business.

Gentlemen, there are three great specialists in this country who have equal responsibility for the amazing discovery of vitamines. Nobody has even seen a vitamine or tasted one or heard it. It is something that is supposed to be in certain foods that makes life. These gentlemen are Doctors McCollum, of Baltimore, and Sherman, of New [fol. 441] York, and Mendel, of Yale. Doctor McCollum came before our committee and made the assertion that if we fed rats a certain food and some other rats some other foods some will grow fat and some will grow ill. This picture Mr. Voigt has shown you is in harmony with that description, but I shall in a minute read from Doctor McCollum, specifically making an assertion on the other side of the question. Doctor McCollum made the assertion before our committee that unless every man in the country should drink a quart of sweet milk a day he would be underfed and be a runt.

I remember very distinctly that my friend the gentleman from Kentucky [Mr. Kincheloe] resented that absurd statement, and the gentleman from Nebraska [Mr. McLaughlin] called attention to the fact that with McLaughlin's large family of children if they drank as much milk as McCollum demanded, because the output would be inadequate and the price advanced, it would cost my friend McLaughlin of Nebraska $7.92 a day for his milk bill. Doctor McCollum is reputed to be a great doctor, and I want to present to you his double position before I am finished with this. He says that the rat that is fed filled milk alone

grows thin and dies. Why, if you feed a baby on pure butter and nothing else it will die, or if you feed a baby on ham and nothing else it would die, but he says you must give the rat the whole milk to save him and make him sleek and fat. Have you ever seen one of the rats around a farmhouse fat and sleek and skillful and daring? Where did he get his pep? From whole milk? Where did he get any milk at all?

Mr. Voigt: Will the gentleman yield?

Mr. Aswell: Yes, sir.

Mr. Voigt: I want to say to the gentleman the rat which is at liberty and not in captivity feeds on other animals and gets the blood and the vitamines in that way.

Mr. Aswell: What other animal does a mouse feed on?

Mr. Voigt: I can not tell you, but that is the testimony of Doctor McCollum.

Mr. Aswell: Now, Mr. Chairman, let me quote Doctor McCollum. Here is a letter from Doctor Mendel, of Yale University, the highest authority on the subject, with reference to this strange entity that is called vitamine. He writes this letter to Representative John Clarke, of New York:

The situation is somewhat as follows: The investigations of recent years have demonstrated that in addition to the usual nutriments, proteins, fats, sugar, and salts, milk contains properties now described as vitamines. One of these is abundantly associated with the milk fats; as was first demonstrated by McCollum and by Osborne and myself several years ago. It is frequently called fat-soluble vitamine A. It is not universally present in foods and it is essential to the welfare of growing individuals. It is found in eggs, in green vegetables, in various animal fats—rarely in those of vegetable origin as they are prepared for the market. Every physiologist admits that growing children should have some quota of vitamine A; how much is needed is not definitely known. For infants the preferable supply admittedly is whole milk. However, McCollum is authority for the statement that approximately half of the vitamine A is present in the nonfat part of the milk—that is, in skim milk; and another competent scientific investigator, Professor Sherman, of Columbia, has announced that skimmed milk furnishes important amounts of vita-

mine A. I inclose a copy of their published statements which I happen to have at hand.

Preparations of so-called "filled" milk are emulsions of vegetable fats in skimmed milk. Coconut oil is commonly used, I believe, in preparing them. These fats are admittedly digestible and nutritious; so is skimmed milk, which, owing to fostered prejudices, has been a greatly undervalued article of diet. The milk compounds should be properly labeled—as should every package of food—to tell the truth. They should not be recommended for use in infant feeding; on the other hand, no harm can come from the chance use of a quantity of skimmed milk even by infants. I mention this because the opponents have spread the impression among gullible persons that the use of a can of milk compound is a positive menace to the infant which consumes it. Skimmed milk is not a rank poison. It is merely not a complete food for an infant; neither is barley water nor "prepared foods."

I am informed that some of the milk compound packages and advertisements not only give the composition of the contents but specifically indicate in words that the product is not recommended for infant feeding. What, then, shall we say of the value of the milk compounds, properly marketed in conformity to the pure-food laws, for adult nutrition? I do not see how they can be designated otherwise than as wholesome food. Indeed, it would be a nutritional advantage if skimmed milk were used more widely in culinary practice. It greatly enhances the value of cereals, notably the "staff of life," bread. "Filled" milks enrich them also, adding wholesome fats. No one knows at present to what extent vitamine A may be required by adults, but in any event the latter, using the mixed diet of adult life, are not dependent on cream for this food factor. It is quite as reasonable to object to the sale of polished rice or patent flour; indeed, skimmed milk and its "compounds" surpass either of these foods in nutritious properties.

The opponents of "filled" milks (representing a special industry) have tried to exclude them on the plea of "menace to public health." No public health question is involved. The claim is a specious one. The House bill represents a fight between industrial "interests," and I am confident that the medical profession would not admit that any wholesome food is a menace. Life and health are

not endangered; on the contrary, I have long believed that our national nutrition would be benefited if, instead of discarding the milk separated from cream in the butter industry—instead of converting a unique food into roof paint, etc.—we encouraged the greater use of the nonfat part of the milk in the kitchen in the preparation of food. The milk compounds represent a device for conserving food exceptional with respect to protein, vitamines, and particularly salts of lime which so few natural foods contain and which many persons really need. The by-products of butter production should be conserved. Has not agriculture been blinded to the importance of the nonfat parts of milk for nutrition? Are you ready to sanction economic waste of food by a new form of prohibition on the invalid plea of harmfulness to children who do not make use of the product?

He goes on to say in conclusion of a long statement that this entity or this quality called vitamine is always in skimmed milk. This is an established fact by all the great physicians and surgeons who investigated this question. Now, again listen to this:

Several years ago McCollum stated in a brief note that fat soluble A is about thirty times more soluble in fat than in water, in which case skimmed milk will contain about half as much of this vitamine as whole milk. On the other hand, Mellanby, studying experimental rickets in puppies, and Hess and Unger in their studies of the clinical rôle of the fat soluble vitamine, appear to have assumed that their experimental diets could contain considerable amounts of skimmed milk, either in fluid or solid form, and still be nearly devoid of the fat soluble vitamine. According to our experience, skimmed milk contains a very significant amount of fat soluble vitamine, probably about half as much as whole milk, as McCollum's brief statement would imply.

Our experimental evidence of the presence of significant amounts of fat soluble vitamine or "vitamine A" in skimmed milk is twofold. (1) Young rats placed at weaning upon a diet in which dried skimmed milk was the sole source of vitamines have grown steadily (though at less than the maximum rate) for three months or more, trebling their body weights and remaining free from eye disease and in

good general condition. Such results in rats of this age can be obtained only on diets furnishing significant amounts of "vitamine A." (2) Rats which had been brought to the typical condition of declining body weight and characteristic eye disease due to deficiency of fat soluble vitamine in their food have been cured by the feeding of skimmed milk powder. (A third type of experiment may be mentioned which, while it would not be conclusive alone, affords interesting confirmation. Rats which have failed to grow upon a diet of white bread grew with extraordinary rapidity for some time (though not to full adult size) when the bread was supplemented by dried skimmed milk only. The latter of course supplemented the bread in several ways, but unless the skimmed milk had furnished important amounts of fat soluble vitamine such rapid and extensive growth would hardly have been possible.)

That was a statement unqualified by the highest authority in this land on this subject. And so, gentlemen, this effort is made here before this Chamber to push through a bill for the benefit of the special dairy business, and to try to push it through by the tail of a rat is absurd and ridiculous and should not be recognized by intelligent people. [Laughter and applause.]

Mr. Oliver: Will the gentleman yield?

Mr. Aswell: I will yield.

Mr. Oliver: Did the gentleman ascertain whether a single State of the Union has passed a law prohibiting the sale of this product?

Mr. Aswell: Some few of the States have.

Mr. Oliver: Was any consideration given to limiting the bill to the importation of this product into those States where its sale was forbidden?

Mr. Aswell: None whatever, but I will say to the gentleman from Alabama that the passage of this bill, if constitutional, would in no way affect the States because factories in any State of the Union could do an intrastate business.

Mr. Oliver: Was any testimony submitted that this product was poisonous or injurious if used for the purposes you stated the label on the can had advised it to be used for?

Mr. Aswell: I will say to the gentleman from Alabama gladly, that during all the hearings, lasting many days, that question was raised time after time and the evidence

was overwhelming that this product is not unwholesome, not deleterious, and not injurious to health, absolutely without question. On the contrary, it was argued before that committee time after time that one of the great needs of this country is to encourage the larger use of milk and milk products. The important fact here is that the farmers of the country have not been correctly informed as to the meaning of this bill. The records show that during the last year this milk compound created a market for skimmed milk in this country of 200,000,000 pounds, ranging from 35 to 65 cents per hundred pounds, and that these 200,000,000 pounds of food heretofore have been abandoned or thrown away. Therefore these milk compounds have brought into use in this country for baking and cooking purposes 200,000,000 pounds of skimmed milk not heretofore used at all and for which there was no market at all.

Mr. Bankhead: That would approximate about $100,000,000 a year?

Mr. Aswell: At least. And why should the milk-producing farmer be fooled into supporting this monstrous bill against his own business?

Mr. Gernerd: Can you give me the nutritive value of coconut oil, which is substituted for the butter fat extracted from the milk?

[fol. 442] Mr. Aswell: Go down to the Tropics and you will find people live largely on it.

Mr. Gernerd: I have not heard anything in the hearing that told me anything about the value of coconut oil as a substitute for fat.

Mr. Aswell: Can you tell the value of lard and tallow from the cow, and all that sort of thing?

Mr. Gernerd: I think that is beside the query I have made, because that is not entering into the manufacture of condensed milk.

Mr. Aswell: Gentlemen, the proposition is this: If you propose to prohibit the sale and manufacture of milk compounds, you must in honor bound proceed at once to prohibit the manufacture and sale of lard compounds and patented and mixed flours, because they have the same relation to public health. These milk compounds sell on an average of 3 cents a can cheaper than the other. And I am convinced, gentlemen of this committee, that any man at this time and in this crisis in our country's history who would shut away from the poor people of the country any

kind of wholesome food must shudder with responsibility for the results that are to follow. Any man who will advance the price of food products now is treading upon dangerous ground, and that is what is proposed to be done here.

Mr. Ketcham: Do I understand the gentleman to carry the impression to the committee that this product is sold at a cheaper price?

Mr. Aswell: It is. The record shows the average is 3 cents a can less.

Mr. Ketcham: I would be very glad to submit observations to the contrary.

Mr. Aswell: Your observations will not avail anything when you have the testimony of the people who sell it.

Mr. Ketcham: I have evidence on the other side.

Mr. Aswell: All right; produce it. [Applause.]

[Editorial from the Detroit News, August 26, 1921.]

Those Skimmed Milk Bills.

Pending before Congress are several bills designed to prevent or discourage the production of compounds of skimmed milk and vegetable fats. These had their origin and are finding active support in the organized dairying interests, but they should be given consideration by consumers generally.

The arguments are not new. About the same line of charges have been made against oleomargarine. Brought to absolute sincerity, the dairy people would probably have to admit that their greatest solicitude is for their profits. But they lay much larger stress upon the supposed menace to public health.

This contention is not very well sustained. Dr. Lafayette B. Mendel, of Yale University, is quoted as saying: "The opponents of filled milks have tried to exclude them on the plea of menace to the public health. The claim is a specious one. The House bill represents the fight between industrial interests, and I am confident that the medical profession would not admit that any wholesome food is a menace. I have long contended that our national nutrition would be benefited if, instead of discarding the milk separated from the cream in the butter industry, we encourage the greater use of the nonfat part of the milk in the kitchen in the preparation of food."

Of course it will be admitted that most people prefer unskimmed and unfilled milk to skimmed milk reinforced with coconut oil. Most people like butter better than oleomargarine. But many people can not have everything they prefer. And Congress has no business to hinder the production of food acknowledged to be wholesome because the competition of its manufacture endangers the high prices of other foods acknowledged to be of superior quality.

[From the New Orleans States, May 4, 1922.]

Vitamines Found in Ordinary Food—Doctor Holt Says Don't—People Have Become Unduly Excited.

(By John Goldtrom.)

WASHINGTON, May 4.—The vitamine theory is a passing fad, and all the energizing qualities the average person requires are contained in ordinary food, Dr. L. Emmet Holt, of New York, told the Congress of American Physicians and Surgeons.

Doctor Holt said that while the study of vitamines had been of value to the medical profession in determining their places in dieteties he deplored the commercialization of special foods which has followed the publicity given the subject.

"The recent stressing of the importance of vitamines in food is a fad which will pass and the medical profession should not be carried away by it," said Doctor Holt. "Before vitamines it was autointoxication, and now we have been blaming our troubles on the lack of vitamines in certain foods. Practically all the common foods contain all the vitamines the average person needs."

ARCTIS ICE CREAM CO.,

Detroit, Mich., April 22, 1922.

HON. JAMES B. ASWELL,
Washington, D. C.

DEAR MR. ASWELL:

* * * * * * *

We were able to get a small quantity of hydrogenated cottonseed oil which seemed to work out very satisfactorily, but the manufacturer of this oil was only able to give us an experimental quantity. He stated * * * that it would be six or eight months before he would have the necessary equipment installed to furnish us with sufficient quantities of this product. From the limited tests which we made of the hydrogenated cottonseed oil it seemed to be entirely satisfactory and we think we will be able to use this product.

Just at the present time we are experimenting with the addition of various quantities of egg yolk to our compound milk. The object in adding the egg yolk is to supply the fat soluble vitamines which the dairy interests claim are lacking in compound milk. The egg yolk is very rich in fat soluble vitamines, considerably more so than butter fat, and it was our thought that by adding a small percentage of egg yolk to our compound milk we could provide the necessary fat soluble vitamines and offset all the claims of our opponents as to the milk not being as suitable as whole evaporated milk for the purposes of infant feeding.

It is not our intention to sell this new product for purposes of infant feeding. We will continue selling compound milk for cooking and baking purposes as we have been doing, but we will be able to meet the objections of the dairy interests by proving that our milk is fortified with the fat soluble vitamines which they claim are necessary. So if all this product is used for infant feeding it will be just as satisfactory from a nutritional standpoint as the regular whole evaporated milk. As a matter of fact, though very little evaporated milk of any kind is used

for infant feeding, the sweetened condensed milk is used almost entirely for this purpose.

We have been in the business for some time, and the first use of compound milk for infant feeding we ever heard of came to light in Pittsburgh just recently. Our sales manager happened to be there on a trip and one of our broker salesmen asked him why we put the warning on the label, "Do not use in place of whole milk for infant feeding." Our sales manager replied that it is claimed by some people that compound milk is not suitable for that purpose and that in the absence of more definite information we advised against its use. The salesman then replied that in calling on the retail trade a grocer had asked him about this use of compound milk and told him he knew of a certain woman in the neighborhood who had raised her youngster on our compound milk and that he certainly was a healthy-looking youngster. Out of curiosity we investigated the case. The child's mother told us she had raised the infant on "Carolene" and that he was perfectly healthy and normal in every respect. Our sales manager, Mr. Carroll, brought back a photograph of him, and he certainly is the picture of health. Nevertheless, we do not sell our milk for purposes of infant feeding. No form of canned milk should be used for that purpose, and very little evaporated whole milk or compound milk is so used.

On the other hand, a considerable quantity of sweetened condensed milk is used, and the Borden Co., who are active in supporting this bill, have built up a considerable business from the use of their "Eagle" brand sweetened condensed milk for this purpose. We can get any number of nutritional experts who will tell us that Borden's "Eagle" brand sweetened condensed milk is a very poor infant food and that the large excess of sugar contained in it is very apt to result in digestional disorders in infants. We feel they are doing infinitely more harm to the youth of the Nation in advertising and pushing the sale of their sweetened condensed milk for infant-feeding purposes than can ever result from the use of compound milk.

We are going to have a feeding test conducted using our new compound milk, containing egg yolks and regular whole evaporated milk, and compare results. Our chemists tell us they are certain the new compound milk will prove to be just as good, if not better, as a growth promoting food than regular evaporated milk. We are going to have these

tests run by two different independent laboratories, but it will be some time before the results will be available.

* * * * * * *

Yours truly,

CAROLENE PRODUCTS CO.,
By GLEN P. COWAN.

CHICAGO, *April 28, 1922.*

Hon. JAMES B. ASWELL,
House of Representatives, Washington, D. C.

DEAR MR. ASWELL: I just received a copy of one of the latest books on the subject of vitamines. It is entitled "The Vitamines," and is by H. C. Sherman, professor of food chemistry, Columbia University, and S. L. Smith, specialist in biological and food chemistry, United States Department of Agriculture. Both of these men are considered authorities in the field of biological chemistry.

On page 182 of this book they comment on the fat soluble vitamine content of skimmed milk as follows:

"It is important to note that milk contains much more of the fat soluble vitamine than is contained in its fat globules. According to a brief statement made by McCollum, the vitamine A in a given volume of milk is about equally divided between the fat globules and the aqueous portion. This would mean that skimmed milk will contain about one-half as much vitamine A as whole milk, and dry skimmed milk will be about one-third as rich in vitamine A as is butter fat. Sherman, MacLeod, and Kramer (1920 proceedings Soc. Exptl. Biol. Med., vol. 17, p. 41), while not measuring quantitatively the relative amounts in whole and skimmed milk, have confirmed the fact that skimmed milk is an important source of vitamine A, though, of course, by no means comparable with whole milk in this respect."

This is of particular interest to me, in that the statement previously made by McCollum is corroborated by Sherman, MacLeod, and Kramer. Compound milk, of course, has all of the water soluble B and C vitamines which regular whole evaporated milk contains, and ac-

ording to the above approximately one-half of the fat soluble A vitamines. It would seem, then, by the addition of a quantity of egg yolk, which is known to be very rich in fat soluble vitamine A, we can make our compound milk just as valuable from the vitamine standpoint as is regular whole evaporated milk.

* * * * * * *

We are arranging now to get the feeding experiments started, and as soon as the results are available I will send them to you.

Yours truly,

CAROLENE PRODUCTS CO.,
By GLEN P. COWAN

The Chairman: The time of the gentleman has expired.

Mr. Aswell: Mr. Chairman, I ask unanimous consent to extend my remarks in the RECORD.

The Chairman: The gentleman from Louisiana asks unanimous consent to extend his remarks in the RECORD. Is there objection? [After a pause.] The Chair hears none. [fol. 443] Mr. Voigt: Mr. Chairman, I ask leave to extend my remarks in the RECORD.

The Chairman: The gentleman from Wisconsin asks unanimous consent to extend his remarks in the RECORD. Is there objection? [After a pause.] The Chair hears none.

Mr. Voigt: Mr. Chairman, I yield 10 minutes to the gentleman from Iowa [Mr. Haugen].

Mr. Haugen: Mr. Chairman, the object of the legislation proposed in the so-called filled milk bill, now before the House, is to suppress fraud and deception by prohibiting the manufacture and shipment of filled milk in interstate or foreign commerce, a counterfeit generally conceded to be a gross menace to public health, especially to that of infants and invalids. The manufacture and use of filled milk, the bogus milk, has resulted in undernourishment and faulty diet, and has undoubtedly caused much disease and loss of life.

According to the testimony printed in the hearings, the business of making filled milk is profitable and flourishing. According to figures furnished the Bureau of Markets, the manufacture of the substitute has increased from 30,488,267 pounds in case goods in 1917 to 84,044,000 in 1920, about 275 per cent. Bulk goods decreased from 4,540,640 pounds

to 2,517,000 during this period, a net increase in the production in three years of 51,532,098 pounds. According to the statement of Mr. McKee, representing the Hebe Co., that company has about 22 plants in the States of Washington, Oregon, Idaho, California, Colorado, Wisconsin, Illinois, Michigan, Pennsylvania, and New York, scattered from the Pacific to the Atlantic coast.

The process of manufacturing this product is simple. The cream or butter fat is withdrawn from the whole milk and coconut fat is substituted in its place. This is done at a low expense. The profit to the manufacturer is largely in removing and selling the butter fat, the superior product, which is now selling at about 42 cents a pound, and importing the coconut fat, the present price of which is from 9 to 12 cents a pound, and substituting it for the butter fat removed. This, at present prices, nets a profit of 30 cents a pound on every pound substituted, or as stated by Mr. McKee in hearings on filled milk before the Committee on Agriculture:

Mr. McKee: Out of the amount which it would take to make a case of milk—105 pounds. Then the coconut fat which we substitute for the butter fat costs us 12 cents. That is the present market. Then the cost of that 3.744 pounds of butter fat would be forty-four and a fraction cents—about 45 cents. So the gain to us by the extraction of the butter fat and the substitution of the coconut oil is a little over 86 cents a case. To-day the price of evaporated milk in carload lots in Chicago, where we sell it, is $5. The price of Hebe in Chicago in carload lots is $3.60. In other words, we get $1.40 more a case for evaporated milk than we get for the compound, making a difference in the selling price of the two products of $1.40 (p. 87).

The gentleman from Alabama seems to contend that the value of one product is equal to that of the other.

Mr. Aswell: Will the gentleman yield? I did not make that proposition.

Mr. Haugen: The nutritive value of unadulterated milk and butter fat is well known, both in its use by human beings and animals. As to the wholesomeness of milk, as compared to that of the substitute, I refer to the statement of Dr. E. V. McCullom, of the School of Hygiene and Public Health, Johns Hopkins University, who, dur-

ing the last 15 years, has confined his efforts solely to the study of nutrition problems and is generally recognized as the greatest authority on the subject. I quote from Doctor McCullom's statement before the committee:

Now, gentlemen, during the last 15 years I have confined my efforts solely to the study of nutrition problems. Everyone who is competent to speak on this subject is in accord with every statement which I have ever made. (P. 20.)

Mr. Ten Eyck: Does this product sour the same as other milk?

Doctor McCullom: Any milk that has been sterilized does not sour as ordinary milk sours. The souring of milk is due to the growth of the lactic acid producing organism, and that, of course, is destroyed in the process of sterilization.

Mr. Ten Eyck: Then it is like condensed milk in that respect?

Doctor McCollum: Yes. (P. 11.)

* * * * * * * * *

Doctor McCollum: There are three substances now commonly known as vitamines which the diet must contain in order to promote satisfactory health in any animal or in any human being. This being the case, it behooves us to consider what foods contain these substances, the chemical influence of which we do not know, but the physiological effects of the lack of which in the diet we fully understand, both from human experience and from animal experimentation. It behooves us to inquire where we can secure each of these three substances in satisfactory amounts.

All that, gentlemen, has come down to this, that there are only three kinds of diet which ever have succeeded in the satisfactory nutrition of men or animals. One of those does not concern us very much here, but for the sake of completeness I will mention it. That is the strictly carnivorous diet, the diet where one animal eats another or where man eats an animal. Some of the American Indians were carnivorous people. The Eskimos are carnivorous people. There are a few examples elsewhere, but they form only small groups of the human family.

The second type of diet which succeeds is * * * of green leafy vegetables, of which we eat very small

amounts. We do not like these things; we never have learned to like them; and we are not likely to come to the unpalatable, unattractive diet which has been forced by poverty on millions of orientals.

I might say that this one outstanding feature of the diet of the oriental people, the consumption of enormous amounts of leafy vegetables, such as spinach, lettuce, cauliflower, Brussels sprouts, sweet potato leaf, vines, etc., is the factor which makes those people as successful as they are. But how successful are they? Look at the Chinaman who does your laundry and see what he is. Almost without exception he is an undersized individual. He is poorly developed physically. Look at the Japanese—a small and physically inferior people. The Japanese children born in California in the last 15 years are larger in both sexes and in all ages, notably larger, than are the children of Japanese born in Japan. Why? Just because the diet of America is a better diet than the diet of Japan.

The third type of diet which succeeds is the diet which in Europe, in America, and on the plains of Asia has been used from time immemorial. That is the diet consisting of cereals, tubers, legume seeds, and meats, along with liberal amounts of dairy products. The cook has in truth been the foster mother of the human race.

* * * * * * *

Now, gentlemen, look at what exists to-day. There are no finer people anywhere in the world than the Arabs, the Bedouins of Arabia, the tribes of the Sahara, who are all milk drinkers. The finest people in Europe are the people of Rumania, Bulgaria, and the Balkan States generally, of Scandinavia, of Switzerland, Scotland, and parts of England, those places where milk and dairy products form one of the prominent, the most prominent constituent of the diet (pp. 20 and 21).

Mr. Thompson: You spoke awhile ago, Doctor, of the great races on the Asiatic plains that used sour milk; you used the word "sour."

Doctor McCollum: Yes, sir.

Mr. Thompson: I would like a little more light on that subject, along with the buttermilk question.

Doctor McCollum. * * * If milk is boiled and some of the constituent elements or acids destroyed, then it rots

and becomes unfit for use. But if they allow it to sour, it does not rot and they have the wholesome advantage of its use. There is no objection to the sour milk itself; it is wholesome.

Mr. Thompson: How about buttermilk?

Doctor McCollum: Buttermilk is wholesome, except that buttermilk is milk from which the fat has been extracted and a certain amount of sugar in it has been transformed into an acid.

Mr. Ten Eyck: Does not buttermilk create a certain acid or germ in the stomach or intestine which destroys other and harmful germs, and is not that the reason why the Belgians are the longest-lived people, due to the eating of the curd, which creates this helpful germ?

Doctor McCollum: Yes; there are some acids in buttermilk which are good in other ways, anyway.

Mr. Ten Eyck: Let me ask you, if milk were not used at all and vegetable oils substituted what effect would it have?

Doctor McCollum: It would make the interior a skeleton, so to speak, and affect the life history and longevity of the individual and hasten the time at which senile characteristics would appear. (P. 36.)

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Doctor McCollum: During the last two years we have been studying one of the greatest national health problems: that is, the problem of rickets in children. Rickets is faulty bone growth. I can not tell you how frequent it is. Recovery is the rule, but recovery with physical inferiority is also the rule. Recovery with more or less physical deformity is also the rule. * * * Doctor Hess, one of the famous physicians in New York, says that nearly 100 per cent of the children of New York have rickets. In Baltimore some of the famous specialists say that from 50 to 60 per cent of our children have rickets in infancy. (P. 30.)

* * * * * * *

Doctor McCollum: We have in this country, mostly throughout the South, a disease called pellagra. Pellagra was discovered in this country about 1908 or 1909. It had been alarmingly on the increase up to about two or three

years ago, up to 1917, when we found, according to the Public Health Service representatives, that there were about 170,000 people with that disease. * * *

The great research in pellagra has been done by Dr. Joseph Goldberger, of the Public Health Service. He has shown very clearly that it is a disease of the undernourished, of the poorly nourished. It is a disease which the well fed never have, and those who have it in a mild way, in the early stages, recover on a satisfactory diet, and there is no other effective treatment for it than satisfactory diet.

* * * Doctor Goldberger has shown conclusively—and his papers are in the public health reports—that pellagra disappears from orphanages, from insane asylums, and from hospitals when pellagra patients are fed on the right kind of diet. In 1916 he produced pellagra experimentally in man, in the case of 5 or 6 out of 11 volunteers from the State prison of Mississippi (p. 24).

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Mr. Kincheloe: The point I am asking for information on is this: If it is not deleterious to the health of the individual——

Doctor McCollum (interposing): It is deleterious.

Mr. Kincheloe (continuing): When it is used in baking, cooking, and in coffee, if it is not deleterious when so used, why should the people who want to use it be deprived of it?

Doctor McCollum: I should say that these defects in these substitutes will not take the place of the milk, if we are to have an optimum diet; if we are to have an optimum diet, you have got to adhere to the milk. If you take something out of it——

Mr. Kincheloe: * * * I am going to agree with you that it is not good for infants.

Doctor McCollum: It is not good for adults either.

Mr. Kincheloe: You said awhile ago that it was not deleterious for use in baking, cooking, and in coffee.

Doctor McCollum: It is deleterious, in so far as it crowds out other things that are in the whole milk, and

which these substitutes are intended to take the place of (pp. 34, 35).

* * * * * * *

Doctor McCollum: The thing for us to do, gentlemen, is this: We are as a Nation now using approximately half a pint of milk per day per person. * * * We should take at least a quart of milk per day, or its equivalent, and we should reduce our meat consumption to [fol. 444] approximately 5 per cent of the total energy value of the diet; whereas we are now taking from 10 to 13 per cent, according to statistics I have gathered in numerous boys' schools and other institutions.

Mr. Kincheloe: What would be your substitute for that meat?

Doctor McCollum: The substitute would be the quantity of milk which I have described—a quart of milk per day for every individual in the land, half as much meat as we are taking, and then the cultivation of the practice of using green salad dishes just as far as our appetites and our interest in our own physical well-being will permit us to. (P. 26.)

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Doctor McCollum: To make it as clear to you as I can, let me say that this is not a matter of a single experiment; it is a correlation which we can make through an experience covering 15 years and covering about 4,000 carefully conducted feeding experiments of all degrees of length from a few weeks to the full span of life of the animals. (P. 23.)

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Doctor McCollum: My parting statement, gentlemen, will be this, that there is no question but what milk is the only food for which there is no effective substitute. It is not a question of whether there is some food value in skimmed milk, as to whether we can not get along in some peculiar situation, that one might not get along if a suitable amount of eggs were included in the diet every day. It is not a question whether technically you can bring before a legislative committee of this sort a situation which might work in a satisfactory manner without this food.

But this is the point, that we are educated to use milk. We are a people who for hundreds of generations have depended upon dairy products as a prominent article of our diet. We know how to use it, and we like it. We have an agricultural industry which can not remain a permanent one—there can be no permanent system of agriculture without an animal industry to go with it. Which animal industry are you going to maintain?

This is not a public health aspect in its nearer relations, but in its fundamental relations it is. How are you going to maintain a permanent system of agriculture? Phosphorus and potassium are the limiting factors in the soil of America. We have no deposits of phosphorus and no adequate deposits of calcium that will meet the agricultural needs of this country for fertilizer. If we are going to take off the farms continually the cereals and other crops, if we are going to remove the valuable food from the farm, then we sell the fertility of our farms. You will be doing then what has been done in New England, in New York, in Pennsylvania, and is now being done in the Northwestern States; you will crop your soils out until they will produce no more until certain elements are put back, because they were robbed from the soil. (Pp. 32 and 33.)

Doctor Erf, of the Ohio State University, secretary of the Ohio Dairymen's Association, and their feeding adviser, stated before the committee:

We had a number of experimental cages of white mice. As near as I can recall, those that were fed on Hebe weighed about 45 grammes and those that were fed on milk weighed 182, I think. (P. 165.)

The testimony of Doctor McCollum and Doctor Erf and the facts ascertained in the many actual experiments should satisfy all that the use of counterfeit is deleterious to the health of not only infants but adults as well.

Eleven States have enacted laws restricting the sale of filled milk—Oregon, California, Utah, Colorado, Wisconsin, Ohio, New York, New Jersey, Maryland, Florida, and Connecticut.

Mr. Johnson of Mississippi: I have heard what the gentleman said about this fraud that is being practiced, if there is fraud practiced, but I would like to have the getleman tell us where he gets the constitutional authority for prohibiting the shipment of this food in interstate

commerce when it has been shown by the author of the bill, the gentleman from Wisconsin [Mr. Voigt], that it is not injurious or deleterious to human health, but merely unwholesome. Where do you get your constitutional authority for prohibiting the shipment?

Mr. Haugen: Let us settle the first question as to its being a fraud and injurious to human health.

Mr. Johnson of Mississippi: In view of the child labor law the first decision in the child labor law——

Mr. Haugen: When we have settled the first question we will have no trouble in settling the second—the constitutionality of the bill.

Mr. Voigt: Will the gentleman yield to me?

Mr. Johnson of Mississippi: The gentleman can not deny that nux vomica will kill a mouse, but will not contend that it would necessarily kill a human being?

Mr. Haugen: If you will turn to the testimony before the committee, which I have quoted from Doctor McCollum, an unquestioned authority on this matter, you will find that he states that it is deleterious to the health of not only infants but adults as well. The investigation made and the facts ascertained by Doctor McCollum and Mr. Erf go to show that it is injurious to health, and if injurious to health and a fraud, Congress undoubtedly has the power to regulate its manufacture and sale in interstate commerce.

One contention is that the pure food and drugs act requires the labeling of cans, and if that law is properly enforced no further legislation is required. Labeling is important, but it is not sufficient in itself to protect the public health. The labeling of the cans in which the substitute is sold does not protect the vast number of people who are unknowingly served with it in hotels, restaurants, and boarding houses; besides, there are thousands of people in this country who can not read a label. The substitute is bought largely by the ignorant. Many do not even look at the label, much less read it, when purchasing it. Evidently much of it is labeled to conform with the pure food and drugs act, as, for instance, the Hebe, a popular brand, is labeled:

Net contents 1 lb. Avoirdupois. Hebe Reg. U. S. Pat. Off. A Compound of Evaporated Skimmed Milk and Vegetable Fat. Contains 7.8 per cent vegetable fat: 25.5

per cent total solids. The Hebe Company. Offices: Chicago-Seattle, U. S. A.

And also contains the statement—

For Cooking, Baking, Coffee. Do Not Use In Place of Milk for Infants.

To this there is no charge made as to misbranding food in interstate commerce. If not properly labeled, or if misbranded, the Department of Agriculture could, under the pure food and drugs act, suppress the practice.

In discussing the matter of properly marking the cans in which the filled milk is sold and printing a warning on the containers against the use of the substitute for certain purposes, Doctor McCollum had the following to say before the committee:

Mr. Kincheloe: Why could they not be protected by the prescription on here saying, "Do not do that"?

Doctor McCollum: That would protect those who are capable of reading and who take the trouble to interpret the labels, but I am speaking in behalf of those tens of thousands of uneducated mothers, of foreign mothers, who are not capable of reading that label. We are protecting the public against poisonous drugs, in so far as it is possible, by laws and ethical considerations regulating the actions of pharmacists. That is the best we can do (p. 34).

Undoubtedly much of this substitute is sold as real compound milk and not as filled milk, and at the same price as the real article. The following testimony before the committee would so indicate.

Mr. Engels: I might also add, supplementing his remark, I was dictating a little to my stenographer yesterday afternoon. He had just gotten back from a visit to New Hampshire, and the people he visited up there were paying 17 cents a can for Carolene and thought it was a full evaporated milk, and they were amazed when they found out that it was not (p. 169).

Mr. Clague: In connection with what the gentleman has stated, I wish to have it appear in the record that I inquired at a large number of stores in Washington just to find out the price of Hebe within this last two weeks, and condensed milk, and almost without exception the

price was the same. I did not go to 156, but I went to quite a large number of the leading grocers in this city.

* * * * * * *

Doctor Larson: Week before last these 156 stores sold the real product for 9 cents for the large can and the filled milk for 10 cents (p. 126).

Another matter worthy of consideration is the importance of agriculture, its future progress and prosperity, which is the very foundation of our Nation's growth and greatness. All wealth springs from Mother Earth. Our bread basket was essential in winning the war. All agree that upon the tiller of the soil depends the stability of our Nation and the happiness of our people. When we turn to the census reports we find that more than half of the American people live in rural districts. We find that more than 6,000,000 farmers and 6,000,000 farm laborers, tilling more than 6,000,000 farms, produced last year 5,600,000,000 bushels of cereals, which is about one-third of the production of cereals in the world, and about 917,000,000 bushels of wheat, which is about one-third of the wheat produced in all the world. We have 43,000,000 head of cattle, 23,300,000 milch cows, giving more than 8,500,000,000 gallons of milk. We have 71,000,000 swine, 49,000,000 sheep, and 19,500,000,000 pounds of meat, pork and mutton. Our factories and mills have for some time been running on part time, with only 35 per cent production. This has not caused much disturbance. True, there is an occasional local disturbance here and there. The failure of a crop, or only a 35 per cent production of crop, would cause not only a national calamity, but great alarm throughout the world. The fertility and productivity of the soil, the yield and the crops are dependent upon the dairy cow. Without the dairy, the rejuvenating of the soil we would have a shrinkage in yield and depletion of the soil, and as a result the farms would be deserted. If so, the dairy and this legislation is not only to the interest of our 6,000,000 farmers and 6,000,000 wage earners on the farm, but to all of our people. It is unnecessary to say that just laws to prohibit the manufacture and sale of the counterfeit, and an honest enforcement of such laws, are necessary.

In my opinion, fraud, made possible by counterfeiting should not be tolerated. It should be prohibited in every form. In my opinion the counterfeiting of milk is just as unjust, if not more so, as the counterfeiting of gold dollars. Counterfeiting a $10 gold piece robs the victim of $10. The counterfeiting of 100 pounds of butter fat, worth $35, by substituting for it 100 pounds of coconut fat, worth $12, and selling the compound at milk prices, not only robs the victim of $23, but if served to infants or invalids it may rob him of his child or other member of his family.

[fol. 445] The counterfeit of milk is on a par with the counterfeiting oleo for butter. We have had much experience with oleo laws. Thirty-two States with five-sixths of our total population, enacted laws prohibiting the sale of yellow oleomargarine. According to Secretary Gage's report, 5,492 dealers were then engaged in selling the counterfeit oleo in violation of the State laws. They sold in 1889 in those 32 States 62,825,582 pounds of yellow oleomargarine made in semblance of butter, while 1,501 dealers sold 16,860,141 pounds in the remaining States. Iowa had a drastic law prohibiting the coloring of substitutes in imitation of butter or cheese, and requiring that every package be plainly marked "Substitute for butter," and that each sale be accompanied by a verbal notice and printed statement that the article was an imitation and giving the address of the maker, and also requiring that the use of the imitation in hotels and bakeries must be made known by signs. Nevertheless, as shown by Secretary Gage's report, three dealers sold 79,927 pounds of yellow oleomargarine in the year 1889 in the State of Iowa, every pound of it sold in violation of the law and every pound thus sold displaced a pound of butter and robbed the dairy producer of his legitimate market. B. P. Norton, then dairy commissioner of Iowa, stated in a letter:

I have no doubt that we are injured $2,500,000 every year for the benefit of the oleomargarine producer and the consumers are not at all benefitted.

Mr. Johnson of Mississippi: Mr. Chairman, will the gentleman yield?

Mr. Haugen: We all believe in just laws and an honest administration of such laws. We can not be contented with anything else. Legislation not to deprive an individual,

corporation, or interest of a single dollar honestly acquired, but legislation to promote progress, prosperity, and happiness to all our people, to see to it that nobody is imposed upon, that all are given adequate protection against counterfeiting, resulting in fraud and deception; yes, against any invasion on the part of unscrupulous interests in order that we may have the fullest development of every worthy and legitimate enterprise, certainly legislation to protect the health and lives of our people. [Applause.]

I ask unanimous consent to incorporate in my remarks excerpts from the hearings.

The Chairman: The time of the gentleman from Iowa has expired.

Mr. Haugen: I ask unanimous consent, Mr. Chairman, to revise and extend my remarks.

The Chairman: Is there objection to the gentleman's request?

There was no objection.

Mr. Jacoway: Mr. Chairman, I yield five minutes to the gentleman from Louisiana [Mr. Lazaro].

The Chairman: The gentleman from Louisiana is recognized for five minutes.

Mr. Kincheloe: Mr. Chairman, I think we ought to have more people here to hear the discussion. I made the point of order that there is no quorum present.

The Chairman: The gentleman from Kentucky makes the point of order that there is no quorum present. The Chair will count. [After counting.] Ninety-six Members are present—not a quorum.

Mr. Knutson: Mr. Chairman, I ask for tellers.

The Chairman: No quorum is present. The Clerk will call the roll.

The Clerk called the roll, and the following Members failed to answer to their names:

Andrew, Mass.	Bois
Anthony	Brand
Atkeson	Britten
Barkley	Brooks, Pa.
Beck	Brown, Tenn.
Blakeney	Burke
Bland, Ind.	Cantrill
Bland, Va.	Carew

Chandler, N. Y.
Chandler, Okla.
Christopherson
Clark, Fla.
Classon
Cockran
Cole, Iowa
Collins
Connell
Connolly, Pa.
Cooper, Ohio
Copley
Coughlin
Crago
Cramton
Crowther
Cullen
Dale
Davis, Minn.
Dempsey
Dickinson
Drane
Drewry
Driver
Dunbar
Dunn
Ellis
Evans
Fairchild
Favrot
Fenn
Fess
Fields
Fish
Focht
Fordney
Foster
Free
French
Frothingham
Gallivan
Garrett, Tenn.
Glynn
Goodykoontz
Gould
Graham, Ill.
Graham, Pa.
Griest
Griffin
Hammer
Hawley
Himes
Hogan
Hudspeth
Ireland
James
Jefferis, Nebr.
Johnson, S. Dak.
Johnson, Wash.
Kahn, Calif.
Kelley, Mich.
Kelly, Pa.
Kendall
Kennedy
Kindred
Kinkaid
Kitchin
Kline, N. Y.
Knight
Kraus
Kreider
Kunz
Langley
Larson, Minn.
Layton
Linthicum
McArthur
McFadden
McKenzie
McLaughlin, Pa.
McPherson
Maloney
Mann
Mansfield
Michaelson
Mills

Mondell	Sinnott
Montoya	Smith, Idaho
Moore, Ill.	Smithwick
Morin	Snyder
Mudd	Stafford
Nelson, A. P.	Stiness
Nelson, J. M.	Stoll
Newton, Minn.	Strong, Pa.
Nolan	Sullivan
O'Brien	Sweet
Ogden	Tague
Oldfield	Taylor, Ark.
Olpp	Taylor, Colo.
Paige	Taylor, Tenn.
Park, Ga.	Tillman
Patterson, N. J.	Tilson
Pringey	Tinkham
Rainey, Ala.	Treadway
Rainey, Ill.	Tyson
Reavis	Upshaw
Reber	Vaile
Riordan	Vare
Rogers	Walters
Rosenbloom	Wason
Rouse	Wheeler
Rucker	Williams, Tex.
Ryan	Winslow
Sabath	Wise
Sanders, Ind.	Wood, Ind.
Sears	

Thereupon the committee rose; and the Speaker having resumed the chair, Mr. Hicks, Chairman of the Committee of the Whole House on the state of the Union, reported that that committee, having under consideration the bill (H. R. 8086) to prohibit the shipment of filled milk in interstate or foreign commerce and finding itself without a quorum, he had caused the roll to be called, whereupon 270 Members responded to their names, a quorum, and he submitted a list of abstentees for entry in the Journal.

The Speaker: The committee will resume its session.

The Chairman: The time now stands as follows: The gentleman from Arkansas [Mr. Jacoway] has 70 minutes

remaining. The gentleman from Wisconsin [Mr. Voigt] has 61 minutes remaining. The Chair recognizes the gentleman from Arkansas.

Mr. Jacoway: Mr. Chairman, I yield five minutes to the gentleman from Louisiana [Mr. Lazaro].

The Chairman: The gentleman from Louisiana is recognized for five minutes.

Mr. Lazaro: Mr. Chairman, yesterday we passed the bill giving agriculture representation on the Federal Reserve Board, and soon we will pass the bill extending the time of the War Finance Corporation. Both of these bills are nonpartisan and meritorious and should become law. I wish to discuss both bills briefly, first the bill giving agriculture representation on the Federal Reserve Board.

When we take into consideration the fact that the Federal Reserve Board is not created for the purpose of making loans only, but to decide on a general policy to be pursued, it seems to me highly desirable that the various basic activities of this country should be represented on the board. It is important that there should be on this board some man who is agriculturally minded, who appreciates the effect upon agriculture and upon prices of certain large policies in administrating our great credit machinery. I think it is highly desirable that inasmuch as the law already provides for representation, industrially and commercially, we should add agriculture, which certainly is the basic and fundamental industry of this country. Surely all must agree that in considering, financially, industrially, and commercially, the industries of the country, agriculture also should be included.

The bill extending the time of the War Finance Corporation merely extends the operation of credit facilities we are already familiar with. I was one of those who helped to revive the War Finance Corporation, and I do not know of any other measure that did more to help agriculture and business throughout the United States than this measure. The people are just beginning to learn its benefits and are asking that it be continued. It is realized now more than ever that it is absolutely necessary to have better credit facilities in order to have ample production and intelligent marketing. We are not asking for special benefits for special sections or classes, but fair and equal treatment for all the people engaged in all the industries of the country. When all the industries are represented in the

operations of our laws there will be less contempt for the law and more prosperity and happiness among our people.

Agriculture has been brought to a point where its future is imperiled, where it is bound to go backward unless real relief is to come soon. The need of a constructive national program looking to the rebuilding of agriculture is absolutely necessary. That fact is appreciated by business men and laborers everywhere. It is plain to all now that there must be production and prosperity on the farms if we are to have employment and good wages in the cities. What contributes to the prosperity of agriculture unquestionably benefits all industries. It is not class legislation to demand that agriculture has as good credit facilities as any other business. It is legislation in the interest of all classes. It seems to me that it is high time for us to understand that if we are to revive agriculture, business, employment, and prosperity in this country we must adopt a national constructive agricultural program.

First. This program must include representation of agriculture in the Government bureaus that have to decide upon [fol. 446] policies governing loans. There must be longer terms and a lower rate of interest.

Second. The perfecting of our laws facilitating cooperative marketing.

Third. Laws punishing severely illegitimate speculation in the exchanges of the country. The larger part of the living cost to-day is added to the price of food and clothes after they leave the farmers' door. This the consumers in the big centers should understand, and when they do I am sure they will cooperate and support us in demanding that our system of distribution be protected from these gamblers.

Fourth. The extension of better warehousing facilities, where our products can be stored without danger of being damaged by the elements, graded intelligently, and negotiable certificates can be issued permitting the owners to use them in their daily business transactions.

Fifth. Perfecting of the farm loan system, with the view of encouraging home ownership. This is not only good business but it is vital to the preservation of our country and its institutions against the spread of radicalism.

Sixth. The recognition of the tariff as a nonpolitical and economic problem, with the view of giving equal protection to our agricultural products that is given to our manufactured products, not with the idea of enriching a few at the expense of the many, but reasonable protection to maintain our American standard of wages and living.

Seventh. Better and cheaper transportation facilities, which will come to us only when we adopt a comprehensive system of transportation, coordinating the use of good roads, railroads, and waterways.

Eighth. Business and economy in local, State and National government, with the view of reducing the burden of taxation. We are going through a period of reconstruction and unrest, and I believe our people are more interested in the immediate and proper solution of these big problems than they are in politics. I believe, too, that they expect us to work here as Americans rather than partisans in passing the laws that are necessary to give the country relief. [Applause.]

I ask unanimous consent, Mr. Chairman, to revise and extend my remarks.

The Chairman: The gentleman from Louisiana asks unanimous consent to revise and extend his remarks. Is there objection?

There was no objection.

Mr. Voigt: Mr. Chairman, I yield five minutes to the gentleman from Iowa [Mr. Towner].

The Chairman: The gentleman from Iowa is recognized for five minutes.

Mr. Towner: Mr. Chairman, I shall support this bill without any hesitation. Its purpose is to prevent the shipment in interstate commerce of an article which is at once fraudulent and injurious. There is not any question in my mind as to the constitutionality of this act. The evidence before the committee and the report of the committee show clearly that while it is labeled correctly, it is sold as a fraudulent product; that it is represented to be milk; that it is sold as milk when, as a matter of fact, it is not milk.

Perhaps the most valuable element in milk is the butter fat, which in filled milk has been entirely removed. The most valuable constituent of butter fat is that mysterious and hitherto almost unknown substance that we now call

"vitamine," and without which it is virtually impossible to sustain human life. The substitute which is used for butter fat is entirely without vitamine, and therefore that which is of most value in the milk, which is admitted to be the most valuable of all human food, has been abstracted and taken away from this product.

The evidence before the committee shows quite clearly that this product is sold in the neighborhoods where in many cases the people are either so ignorant or so unacquainted with the English language that they can not know and do not understand the labels that are placed upon it, and in that way it is in fact a fraud that is perpetrated upon them.

The evidence also shows that it is represented in many cases by the dealers in milk to be really evaporated or condensed milk, which it is not.

Mr. Walsh: Mr. Chairman, will the gentleman yield?

Mr. Towner: Yes.

Mr. Walsh: This measure, of course, will not prevent these ignorant people from purchasing it if they live in the States which manufacture it?

Mr. Towner: The gentleman is correct.

Mr. Walsh: Would the gentleman contend that we would have jurisdiction to prohibit the shipment of skimmed milk in interstate commerce because it did not contain the butter fat?

Mr. Towner: I do not know whether we would or not. That is not the proposition, and we have not the evidence as to that that we have in this case. The evidence in this case clearly establishes the fact that there is a fraud being perpetrated in the sale of this milk in interstate commerce; and if it is a fraud, then it is constitutional to prohibit its transportation in interstate commerce. If it is a misbranded article, it is perfectly within the jurisdiction of Congress to prevent its being sold in any form. The pure food law has been sustained upon almost every possible ground that could be imagined. And the Supreme Court has always held that if the article sold was deleterious, that if it was in any way a fraudulent article, it could be prohibited from interstate commerce; and in this case the testimony goes so far as to show that so eminent an authority as one of the physicians of Johns Hopkins University says that an infant fed on this milk would certainly have rickets within a short time. That is the condition under which this bill is presented.

The Chairman: The time of the gentleman from Iowa has expired.

Mr. Towner: Has the gentleman any further time that he can grant me?

Mr. Voigt: I yield the gentleman two minutes more.

Mr. Towner: Now, why should not this legislation be passed? If it is constitutional under the authorities, why should we not protect the lives of the children of the United States? If we can be of any assistance within our lawfully constituted powers in so vitally important a matter, ought we not to do it? If a fraud is being perpetrated which is injurious to the health of the babies and the children of the United States, ought we not to do our part to try to prevent it?

Mr. Walsh: I dislike to interrupt the gentleman when he has such a short time, but why does not this come under the pure food law as it is now on the books? If this be a fraud and deleterious, why does it not come under the pure food law?

Mr. Towner: Simply because under the provisions of the pure food law, unless it is misbranded, even when it is an adulteration of an article, if it is not misbranded it may be sold. Of course, the difference lies purely in the fact that this is not, in fact, misbranded. It is given some kind of an artificial name, and the wrong and the injury comes because it is, in fact, in the form of milk, and is sold in cans of exactly the same size, and those who purchase it are made to believe that it is, in fact, condensed milk, so that in reality it is a fraud perpetrated upon the people who above all others in the world ought not to be injured. [Applause.]

The Chairman: The time of the gentleman has expired.

Mr. Voigt: Mr. Chairman, I yield to the gentleman from Minnesota [Mr. Knutson].

Mr. Knutson: Mr. Chairman, the so-called Voigt filled-milk bill is one of the most meritorious measures to come before this House in a long time. The bill seeks to put a stop to a flagrant fraud that has been perpetrated upon the babies of the Nation for a number of years, and its passage has been urged by women's clubs and civic bodies as well as farmers' organizations from every section of our land.

Just what does this bill propose? Simply this: To prevent the introduction of filled milk in interstate commerce, and

I am amazed that there should be those in this body who would prevent its enactment on constitutional grounds. Mr. Chairman, I am not a lawyer, therefore I will not attempt to discuss this measure from a legal angle. I do hold, however, that Congress has the right to enact this legislation, for it is clearly in the interest of public welfare. Years ago Congress legislated on oleomargarine and it was upheld by the courts. This legislation is on all fours with the oleomargarine legislation, and if it is carried into the courts it will surely be upheld.

There is absolutely nothing that can be said for filled milk. It is an indefensible fraud that has been perpetrated on unsophisticated foreigners for the past six or seven years. The manufacturers extract from the whole milk all the butter fat and vitamines, which is replaced with an equal amount of refined coconut oil. The butter fat is worth about 45 cents per pound, while the substitute is only worth 7 or 8 cents. The adulterated product looks like the genuine article, but it is absolutely without value as a food, and the poor babies to whom it is fed become undernourished and emaciated. It stunts the poor little things in body and soul, and yet there are those who plead for the manufacturers of these damnable articles of fraud and would have us believe they are honest, upright business men.

Dr. E. V. McCollum, of Johns Hopkins University, recently conducted a series of very interesting experiments on the effect of feeding filled milk to rats. These experiments were made at the request of the Committee on Agriculture of the House. I herewith append the result of these investigations:

[fol. 447] Facts About "Filled Milk"

[Issued by the National Milk Producers' Federation, Washington, D. C., May, 1922]

M'Collum's Experiments Answer Congressman's Doubts

. . . . . .

We are giving here, for the first time, the official result of the experiments, so that you may know what value filled milk compounds have in promoting growth.

The experiment conducted by Doctor McCollum was among the 4,500 or more which he has conducted in nutrition work.

In these investigations the filled milk compound and the whole evaporated milk used were purchased in cans at retail, in the open market and represented the product used in family consumption. Both classes of the product were made by the same manufacturing concern.

Several groups of rats were used in making the experiments. They were alike in breeding, age, health, and general condition. The rats were about 40 days old at the beginning of the experiments.

Doctor McCollum divided his rats into different groups according to the ration fed. The filled-milk group, the evaporated whole-milk group, and the coconut-oil group. The filled-milk group and the evaporated-milk groups were subdivided into two classes, according to the amount of filled milk and evaporated milk used in the ration. * * *

The rat No. 1 was of the evaporated milk group, which was fed the following ration: Rolled oats, 60 per cent; salt, 1 per cent; lime, 1½ per cent; dextrin, 15 per cent; together with 22.5 per cent of evaporated whole milk.

He grew steadily. His hair is slick with the natural gloss. His eyes are bright, skin healthy and tough. This group carried on under this diet for 163 days and at the close of the investigation was used for demonstrations in other experimental fields.

The rats of the filled-milk group were divided into two classes. Seven rats of one of these subgroups were fed a ration of rolled oats, 60 per cent; salt, 1 per cent; lime 1½ per cent; dextrin, 15 per cent; and filled milk, 22.5 per cent. These rats early developed symptoms of xerophthalmia, the fatal eye disease. They were not over half the size of the rats of the evaporated whole-milk group. * * * The bodies are emaciated. The hair coarse, thin, and dry. Bodily these rats were deformed and the ribs knobby. Their eyes had a fishy, glazed appearance with deep fissures in the lids. In 48 days four of the rats of this group died. At the end of 55 days the remaining three of the group had also died. * * *

The second class of the filled-milk group of rats were fed a ration of rolled oats, 60 per cent; salt, 1 per cent; lime, 1½ per cent; dextrin, 15 per cent; and 90 cubic centimeters of filled milk. Four rats were in this group. These rats all developed xerophthalmia, the fatal eye disease. They were also badly emaciated and exhibited the same general char-

acteristics as the rats of the other filled-milk group. At the end of 119 days all had died.

The coconut-oil group of rats were fed the same basic ration as the rats of the other groups. Fifteen per cent of coconut oil, however, replaced the filled milk or whole evaporated milk used in the ration of the other groups. Six rats were in this group and 39 days after the beginning of the feeding all were dead. All developed severe cases of xerophthalmia. * * *

Numerous cases of xerophthalmia in children have been cited, particularly where there has been a lack of whole milk, butter, or other vitamine-carrying foods in the diet.

Aside from the lack of vitamine content filled-milk compounds are fraudulently sold to an extensive degree as milk. In very many cases unscrupulous dealers recommend filled milk as equal to or better than whole evaporated milk.

These compounds have also been recommended by some retail dealers as satisfactory food for babies. They are generally sold at the same and even higher prices than whole evaporated milk.

Ten Reasons Why Congress Should Pass the Voigt Bill

[By Charles W. Holman, executive secretary, National Milk Producers Federation]

Eleven States That Bar Filled Milk Within Their Borders

Ohio, New York, Wisconsin, New Jersey, California, Utah, Colorado, Maryland, Oregon, Florida, Connecticut.

There are at least 10 major reasons why Congress should pass the Voigt bill, H. R. 8086, prohibiting the movement in interstate and foreign commerce of so-called filled milk.

Here they are:

Public Welfare

1. Labeling methods enable fraudulent practices to thrive.

2. Many merchants in poorer communities recommend imitation milk for the use of children and babies.

3. Many merchants advertise imitation milk in the newspapers in plain language for genuine milk.

4. While the product is inferior as a food, in most cases we have found merchants selling imitation milk at the same prices and even higher than they obtained for genuine evaporated milk, notwithstanding the cheaper price per case at which they obtained the imitation product.

5. The present pure food and drugs act is not broad enough to cover the case. The Voigt bill supplements it. Its enforcement will be intrusted to the Department of Justice.

6. The Voigt bill is a children's bill; it bans the movement in interstate and foreign commerce of a compound that is vitamineless as to its fat content, but which is designed to take the place of a product rich in all the vitamines.

7. Trading concerns have attempted to sell imitation milk to American organizations engaged in feeding children and mothers in Europe. Both the American Friends Service Committee and the American Relief Administration have been approached and both organizations turned down the proposals.

8. Dr. E. V. McCollum, of Johns Hopkins University, in his public statements points out that America is already suffering from defective nutrition, due in part to the commercialization of certain foods and the degerminating of cereals to enable them to keep longer. He also points out the growing use of vegetable fats—all of which are vitamineless—in the diet. He reasons from this that the substitution of imitation milk in the diet of either the child or the adult will have quite an effect in furthering the process of physical degeneration now going on.

Economic

9. Despite regulatory, restrictive, and prohibitory laws in 11 States—Colorado, Oregon, California, Utah, Wisconsin, Ohio, New York, New Jersey, Maryland, Florida, and Connecticut—the filled-milk traffic has been steadily gaining.

Production of filled milk, in both case and bulk goods, was:

	Pounds
1919	64,995,221
1920	86,561,000
1921	64,893,731

In this same comparative period the production of sweetened condensed and unsweetened evaporated milk, both case and bulk goods, was:

	Pounds
1919	2,030,957,648
1920	1,578,015,000
1921	1,461,140,312

This shows a constant production for "oiled" milk for 1921 as compared with 1919, and a steady reduction in volume of genuine canned milk amounting to over half a billion pounds, comparing 1921 with 1919.

10. Canning whole milk is one of the best ways of helping to find a market for the national whole-milk surplus. It enables the farmer or the manufacturer to seek wider markets and to effect gradual marketing. This medium is now seriously threatened by the advent of these compounds of skimmed milk and coconut oil. The manufacturer is enabled to purchase the coconut oil at 8 to 12 cents per pound—a price ranging from one-fifth to one-fourth the price of butter fat. Such a wide difference in production costs can not be met by milk producers. They are constantly faced with increasing expenses due to the increasing desire of both the producing and the consuming public for more sanitary milk products.

Finally, "oiled" milk does not offer farmers any additional market for their skimmed milk not already afforded by evaporated milk, but it does take away a market for their butter fats.

Mr. Chairman: Filled milk has the same deadly effect on babies, and it is in behalf of the little ones that I plead. Let us pass this legislation without delay and thereby do much to safeguard the health and lives of those who will be our citizens of to-morrow.

Mr. Tincher: Mr. Chairman, I make the point of order there is no quorum present.

The Chairman: The gentleman from Kansas makes the point of order that there is no quorum present. The Chair will count. [After counting.] Eighty-six Members are present; not a quorum.

Mr. Voigt: Mr. Chairman, I move that the committee do now rise, and I request that that motion be voted down.

The question was taken, and the Chair announced the noes appeared to have it.

Mr. Voigt: Mr. Chairman, I ask for tellers.

Tellers were ordered.

The committee again divided, and the tellers [Mr. Voigt and Mr. Jacoway] announced that there was—ayes 3, noes 89.

The Chairman: The committee declines to rise; a quorum is not present, and the Clerk will call the roll.

The roll was called, and the following Members failed to answer to their names:

Anthony	Cramton
Atkeson	Crowther
Bankhead	Cullen
Barkley	Dale
Beck	Davis, Minn.
Bell	Dempsey
Blakeney	Denison
Bland, Ind.	Dickinson
Bland, Va.	Drane
Boies	Driver
Brand	Dunbar
Britten	Dunn
Brooks, Pa.	Ellis
Campbell, Pa.	Evans
Cantrill	Fenn
Chandler, N. Y.	Fess
Chandler, Okla.	Fields
Christopherson	Focht
Clark, Fla.	Fordney
Classon	Frear
Cockran	Free
Cole, Iowa	French
Cole, Ohio	Frothingham
Collins	Gallivan
Connell	Garrett, Tenn.
Connolly, Pa.	Garrett, Tex.
Cooper, Ohio	Goodykoontz
Copley	Gould
Coughlin	Graham, Ill.
Crago	Graham, Pa.

Griest
Griffin
Himes
Hudspeth
Hukriede
Humphreys
Ireland
James
Jefferis, Nebr.
Johnson, S. Dak.
Johnson, Wash.
Jones, Pa.
Kahn
Kelley, Mich.
Kelley, Pa.
Kendall
Kennedy
Kindred
Kinkaid
Kitchin
Kleczka
Kline, N. Y.
Knight
Kraus
Kunz
Langley
Larsen, Ga.
Larson, Minn.
Layton
Linthicum
Little
McArthur
McFadden
McLaughlin, Pa.
McPherson
Madden
Maloney
Mann
Mansfield
Michaelson
Mills
Montague
Moore, Ill.
Morin
Mudd
Nelson, A. P.
Nelson, J.M.
Nolan
O'Brien
Oldfield
Olpp
Paige
Park, Ga.
Parker, N. Y.
Patterson, Mo.
Patterson, N. J.
Porter
Rainey, Ala.
Rainey, Ill.
Reavis
Reber
Riddick
Riordan
Rodenberg
Rogers
Rosenbloom
Rouse
Ryan
Sanders, Ind.
Sanders, N. Y.
Sears
Smithwick
Snell
Snyder
Sproul
Stafford
Stedman
Stiness
Stoll
Strong, Pa.
Sullivan
Sumners, Tex.
Sweet
Tague
Taylor, Ark.
Taylor, Colo.

Taylor, Tenn.	Wason
Tilson	Wheeler
Tinkham	Williams, Ill.
Treadway	Winslow
Tyson	Wood, Ind.
Upshaw	Woodyard
Vaile	Wright
Vare	Zihlman
Ward, N. Y.	

Thereupon the committee rose; and the Speaker having resumed the chair, Mr. Hicks, Chairman of the Committee of the Whole House on the state of the Union, reported that that committee, having under consideration the bill H. R. 8086, finding itself without a quorum, he had directed the roll to be called, and that 268 Members, a quorum, had [fol. 447a] answered to their names, and that he presented the list of absentees to be entered in the Journal and Record.

The committee resumed its session.

Mr. Walsh: Mr. Chairman, the pending vote is that the committee do now rise, is it not?

The Chairman: That vote was defeated.

Mr. Walsh: But there was no quorum developed.

The Chairman: A quorum has now been developed. There is a quorum present.

Mr. Walsh: The vote was pending at the time, but the absence of a quorum was developed. We took the vote by tellers, and it appeared on that vote that there was no quorum present. Is not that now the pending question before the committee?

The Chairman: The question is on the motion that the committee do now rise.

The question was taken, and the motion was rejected.

Mr. Voigt: Mr. Chairman, I yield 10 minutes to the gentleman from New York [Mr. Clarke]. [Applause.]

Mr. Clarke of New York: Mr. Chairman, Josh Billings once remarked that he had seen many things on milk, but the best thing was cream. [Laughter.]

Members of Congress, when they go to the House restaurant and order mush and milk or bread and milk for their luncheon, as many of us do, have their milk served in bottles, and invariably you will see the Congressman inspecting

the bottle to see how rich the milk is in the cream that rises to the top.

If you take this cream off or separate it from the milk and extract an additional amount with the separator, you get so-called skim milk or thin milk. If you take this skim milk or thin milk and partially evaporate it, then substitute for the cream taken away coconut and vegetable oils, you have "filled milk."

This bill (H. R. 8086) seeks to prohibit the shipment of so-called "filled milk" in interstate and foreign commerce.

The facts in the case are: There has grown up in this country a business of very considerable proportions, estimated to consume about 200,000,000 pounds of skimmed milk per annum. The product of this business is called "filled milk" and bears various trade names, such as "Hebe," "Enzo," "Nutro," "Nyko," and so forth. Filled milk is an evaporated skimmed milk, and may be properly defined as "any milk, cream, or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried, or desiccated, to which has been added or which has been blended or compounded with any fat, or oil other than fat, so that the resulting product is in imitation or semblance of milk." Through the skillful wording of the labels and the more skillful manipulating of distributors, this filled-milk product is palmed off on the unsuspecting public as a whole-milk product. In simpler and less technical terms "filled milk" is evaporated milk from which the cream has been removed and, for the cream taken away, there has been substituted from 6 to 8 per cent of coconut or other vegetable oil. In the process of manufacturing this "filled" milk there has been taken out of that original, healthy, whole-milk product not only the cream but a large proportion of the essential, indispensable, nourishing element, the fat soluble or vitamines that experts in dietetics or nutrition include as an invaluable element of milk. Professor Mendel, of Yale, and Professor McCollum, of Johns Hopkins, the two leading authorities, agree that these vitamines are essential for a well-rounded ration for humankind, especially in the feeding of infants and small children.

"Filled" milk, when put to a laboratory test, shows that mice and rats that have been fed on it waste away, become scrawny, mangy, undernourished, and susceptible to disease, while others fed on the whole milk—under exactly similar conditions—are strong, vigorous, healthy, and al-

most immune from disease. It naturally follows that humankind, especially children and infants, fed on this milk do not obtain these healthy vitamines and are undernourished and often become subject to and susceptible of disease, especially rickets. This "filled" milk product finds its largest market in the industrial centers where foreign born live, and its victims are children.

On the economic side I point to the lesson of experience. Dairy centers in the Middle West, with great effort and at a heavy expense, had developed a large foreign market for whole-milk cheese. This market was promising, not alone in the large demand for this wholesome, healthy product, but in the prospect for enlarging the markets through the years, when along come Avarice and Cunning in the guise of "filled" cheese manufacturers, filled with an inordinate greed for profits, taking advantage of the situation developed by these pioneer dairy interests and they began underselling with their "filled-milk" cheese, so that with this semblance of the real thing incalculable injury was done the dairy farmers, and this foreign market so laboriously built up was destroyed. The present bill proposes that history shall not repeat itself with this fundamental "filled" milk product, and further proposes to prevent the sacrifice of infants on the altar of greed.

Arguments were presented at the hearings that these "filled" milk products were properly branded and came within the scope of the so-called "Food and drugs act of June 30, 1906." To show the flimsiness of their arguments one has but to turn to the records of the hearings, where it was admitted by the manufacturers themselves that—although they still keep up the rest of the imitation—they have changed the wording of the labels, not once or twice but many times, to meet the demands of public opinion and to try and keep within the law.

These "filled-milk" manufacturers claim it is not within the power of Congress to prevent the interstate transportation of their product. I now invite your careful attention to the "Pure food law," and especially to section 7 of that act that defines the adulteration of food, as follows:

That for the purpose of this act an article shall be deemed adulterated * * * In the case of food:

First. If any substance has been mixed or packed with it so as to reduce or lower or injuriously affect its quality, strength, or purity.

Second. If any substance has been substituted wholly or in part for the article.

Third. If any valuable constituent of the article has been wholly or in part abstracted, or if the product be below that standard or quality, strength, or purity represented to the purchaser or consumer.

I wish to call your attention to these words in the first paragraph of that act:

An article is deemed adulterated (in the case of food) when any substance has been mixed or packed with it so as to reduce or lower or injuriously affect its quality, strength, or purity.

Can anyone successfully contend that the natural, whole milk, from which has been taken its cream, or 50 per cent of the fat, soluble vitamine, is not such an article as to come squarely within the wording and intent of the first paragraph of section 7?

But let us proceed a step further, and in the second paragraph of that same section 7 is this wording:

If any substance has been substituted, wholly or in part for the article.

And surely in the "filled milk" there has been substituted for the cream vegetable oils.

In the third paragraph of section 7 we find the absolute conviction of these misbranders and "filled-milk" manufacturers, where the language is again clear and beyond peradventure, for it says that an article of food is adulterated "if any valuable constituent of the article has been wholly or in part abstracted," and it is a certainty that from the whole milk the valuable constituent cream has been abstracted. So that this "filled milk" comes not within one paragraph of section 7 but within each of the three paragraphs. The whole conception, intent, and wording of this section is founded upon the theory that the law was not only to guard the public health but to prevent fraud upon the public.

Let us take one of these labels on their cans and see what it says. "This product contains 7.8 per cent vegetable fat, 25.5 per cent total solids." What does this language mean to you, Mr. Congressman? If you find dif-

ficulty in comprehending it, how about the poor and illiterate mother? But Mr. Hayward, a friendly witness for the manufacturers of this "filled milk," explains this to mean that 7.8 per cent of the 25 per cent is milk solids and fats and that 7.8 per cent of the 25 per cent, or 25½ per cent, is vegetable fat and the balance 50 per cent water. This is the product these "filled milk" producers want to send out in disguise—an impoverished milk compound—to unfairly compete with the wholesome, healthy, life-sustaining vitamines, the pure, wholesome, natural product of the cow.

Now, let us briefly examine the question of the constitutionality of the so-called Voigt bill now before us.

First. I contend that Congress may prohibit the transportation in interstate and foreign commerce of any article the use of which may be regarded as injurious to the public welfare, and maintain that this "filled milk" is such an article.

In the leading case of Gibbons *v.* Ogden (9 Wheat. U. S.) Chief Justice Marshall sets forth the intent of that power—i. e., to prohibit the transportation in interstate and foreign commerce—as follows:

> It is the power to regulate; that is, to prescribe the rule by which commerce is to be governed. This power, like all others vested in Congress, is complete in itself, may be exercised to its utmost extent, and acknowledges no limitations other than are prescribed in the Constitution. These are expressed in plain terms and do not affect the questions which arise in this case * * * or which have been discussed at the bar. If, as has always been understood, the sovereignty of Congress, though limited to specified objects, is plenary as to those objects, the power over commerce with foreign nations and among the several States is vested in Congress absolutely as it would be in [fol. 448] a single government having in its constitution the same restrictions on the exercise of the power as are found in the Constitution of the United States. * * *

And in the celebrated Lottery cases (188 U. S. 321) it has established the principle that the power of Congress to regulate interstate commerce also includes the power to prohibit the interstate carriage of any article deemed by Congress to be injurious in its nature or in its use to the

public health, morals, or welfare, despite the fact that the article is not inherently dangerous. I could continue to cite cases in point, but there are others to follow me whose ability is greater, and I shall not trespass upon your time and patience, leaving the cases cited as conclusive on that proposition.

In laying down the second fundamental proposition, that is—

that Congress, having the power to prohibit the interstate transportation of adulterated and harmful foods, Congress must necessarily have the power to determine what articles are to be considered adulterated or harmful as a means of making the prohibition effective.

This power is an incidental power, but it was clearly recognized by the Supreme Court in the leading case of McDermott *v.* Wisconsin (228 U. S. 115, 129) as follows:

> • • • The article of food or drugs, the shipment or delivery for shipment in interstate commerce of which is prohibited and punished, is such as is adulterated or misbranded within the meaning of the act. What it is to adulterate or misbrand foods or drugs within the meaning of the act requires a consideration of its other provisions, wherein such adulterations or misbranding is defined.

The third proposition I submit to you for consideration is this:

Congress has the power to prohibit interstate shipments of "filled milk" and the power to establish the standard of purity and strength of foods, it being clearly established that Congress has the power to set up standards so as to secure a minimum of the nutritive elements in whatever the product may be and prevent fraud on the general public.

On the face of the proposition these manufacturers of "filled milk" come before you with their product packed in cans similar to those of the long-established whole-milk manufacturers, bearing labels intended to resemble and copies almost of the very labels of the whole-milk containers, the very language of which is intended to deceive the poor, the ignorant, and the careless reader; so I claim, with the above statement of the facts and the decisions of

our highest court, they do not come into court with clean hands, and it is up to this Congress, having set up the standards under the pure food and drugs act, to see to it that those standards are lived up to by all and make impossible the interstate shipments of this product.

Having viewed the technical situation and met the legal objections that may be raised, I now wish to present the picture of the dairy farmer in its general aspects. The exploited age of agriculture is nearly over; cheap farms and homesteads are no longer to be had for the asking. Our original rich soil has become impoverished, and the great majority of the farmers would not have farms to-day if they had not received them from their ancestors. If they had to depend upon their earnings, with agricultural conditions as they are to-day, they would be unable to accumulate the price to buy a farm. It can be said, to the everlasting credit of this Congress, that there is no legislative body in the nations of the world that has recognized more clearly that nearly all of the great problems in economics, in their direct or indirect relationship, rest upon agriculture. It can be further truthfully said, that no Congress stands out more conspicuously in its record of giving an attentive ear, a sympathetic attention to, and enacting constructive legislation that establishes on a more equitable basis the agricultural problems left in the aftermath of the war.

The intensive study of these problems given by the Joint Commission of Agricultural Inquiry of the Senate and the House, the great agricultural conference, and the almost continuous hearings, in my own Agricultural Committee, have been reflected in constructive legislation that has indeed been helpful, not alone in its direct relation to this particular subject but in a wider way to agriculture in general.

This bill (Voigt bill) has for its direct object the prevention of fraud upon the public, the elimination of dishonest competition, the prevention of tricky practices that fall down when put to the test of morals, whether it be the manufacturer or the distributor who takes from his shelf, packed in cans made to imitate the real product, this "filled-milk" product, with the recommendation "just as good," that he sells for the same uses as the genuine, whole-milk product, and it costs the distributor at least 3

cents per can less. The whole object of this bill is shutting the door to these practices that do not meet the standard of common honesty in man's dealings with his fellow man, and to prevent the helpless infant, the poor, ignorant, or illiterate mother from being victimized by avarice and cunning. [Applause.]

Let us look on the humanitarian side for a moment. Unbiased investigators have gone into the poor and thickly settled sections of our industrial centers and have visited, through their visiting nurses, the homes of laborers, and they have found everywhere this product injurious and dangerous for human consumption, the larger part of the nutritive value extracted, and many mothers feeding their helpless children something which they suppose contains nutritive value and vitamines.

The dairy farmers, of whom I am one, come to you to-day, not pleading for a special privilege, not wanting to dig into the Treasury of the United States, not afraid to meet open, fair competitive business, but claiming that as part and parcel of the great fundamental industry of the Nation—yes, as the real backbone of that Nation—they are entitled to be protected from trickery and artifice and fraud in the marketing of their products, whether it be at home or abroad. [Applause.]

No limit marks our hours of labor; the sunrise of morning and the sunset of evening finds us "on the job," and when the day's work is done we plan for the morrow.

There is no class of citizens to-day that enters into the hazards and gambles in the production of the necessities of life that we farmers do; we gamble with Nature in her whims and moods, whether it be the rainfall or the drought; whether it be in the snowstorm that blankets the earth and protects the seed, or in the crust that forms upon the snow and prevents the "cattle on a thousand hills" from getting down to the grass roots, so that starvation and ruination often result; whether it be in the sunshine that causes the seed to sprout and grow or sometimes scorches the earth and destroys the growing crop, or causes the bud and blossom to come forth that bring joy and inspiration to those that "in love of nature hold commune with her visible forms"; whether it be the birds that fly that are sometimes friend and sometimes enemy, or the beetles that crawl; whether it be in those small animals

that burrow in the earth and destroy or those that in that same sphere destroy the enemy, it is a continuous struggle, not alone against the seen but as well against the unseen. [Applause.]

To-day our great Agricultural Department and its splendid, sympathetic, well-informed Secretary Wallace are urging the farmers of the North, East, South, and West to rotate their crops, and as the incident of that urging is the encouragement to an enlargement of dairy farming. We must go, therefore, into the markets of the world with our surplus products, and we ask you to assure our dairy farmers by this act that clean, wholesome, healthy, nutritive whole milk shall have no fraudulent competitors to destroy our markets once established. [Applause.]

I am from one of the greatest dairy districts in the world, the scene of many of Cooper's "Leather Stocking Tales," of Uncas and Chingachook, the playground of my youth, my choice, after roaming the country over, for my last rendezvous and final resting place. The Catskills, the land of narrow valleys and precipitous hills, a land largely peopled by the Scotch and Scotch-Irish, who overcame not alone the Indian but Nature herself. On those wondrous hills and in our enchanting vales are those who toiled with my grandparents, my parents, and myself. Boyhood friends abound, and for them as for myself, I plead. And as I plead for them, I plead for the dairy farmers of the great State of New York and the dairy farmers of the North, East, South, and West, for the cause is a common cause, and we look to Congress, certain that it will not fail us, nor that multitude of unborn who shall enter into the better heritage it becomes our paramount duty to pass on. [Loud applause.]

Mr. Tucker: Mr. Chairman, I never had a clearer idea of my duty than I have of my duty on this bill. To my mind there is no doubt of the unconstitutionality of the proposed bill.

This bill seeks to exclude from interstate commerce "Hebe," "Carolene," and other compounds of skimmed milk and cocoanut oil and other vegetable oils because neither babies nor rats thrive thereon, as stated by Dr. E. V. McCollum, of Johns Hopkins University. (See hearings before the Committee on Agriculture, House of

Representatives, Sixty-seventh Congress, first session, on H. R. 6215, by Mr. Voigt, p. 19.)

But the hearings also show beyond all question that "Hebe" is a wholesome article, not injurious to health, palatable, and largely used for cooking purposes in pastry, custards, gravies, and so forth, though not as nutritious as but cheaper than skimmed milk. There is no doubt or question on either side that this compound is properly labeled, stating that it is composed of cocoanut oil and skimmed milk, and the cans also contain a label "Do not use in place of milk for infants." (Hearings, p. 34; also p. 128, Cowan's evidence.) Mr. Voigt himself, the patron of this bill, on page 15 of the hearings, uses this language:

I will say to you gentlemen that there is nothing poisonous or deleterious in this milk compound.

Prof. La Fayette B. Mendel, of Yale University, an expert of high repute on these subjects, in a letter addressed to Hon. John D. Clarke, a member of the Agricultural Committee of the House of Representatives, shows most clearly that this product is wholesome and valuable, and while not a food on which to raise babies, is harmless if taken by babies. He says:

I mention this because the opponents have spread the impressions among gullible persons that the use of a can of milk compound is a positive menace to the infant which consumes it. Skimmed milk is not a rank poison. It is merely not a complete food for an infant; neither is barley water nor "prepared foods." (See hearings, p. 53.)

See also Dr. J. P. Crozer Griffith's letter (p. 58 of the hearings); also statement of Harry Hayward, of Philadelphia, Pa. (hearings, p. 57); and others maintaining the same view.

That the label is adequate and sufficient is shown by the statement of Mr. Paul R. McKee (hearings, p. 70), where he states that the Bureau of Chemistry of the Department of Agriculture, with the food-control officials of a number of States, were advised as to the adoption of these labels, and they were indorsed by these gentlemen, and then they were told:

Gentlemen, if there is anything else we should put upon the label or leave off of the label in order that the product

shall be sold for what it is, we will be very glad to have your suggestions and to follow them.

Thus showing no attempt to deceive the public, but *uberrima fides* in dealing with the public.

These are sufficient to show that the compound is pure, wholesome, and cheap; that good faith has been shown by the makers of it; and the Department of Agriculture has given its sanction to the labels on the cans by which the public may know exactly what is contained in the article.

Now gentlemen, I challenge the production of a case from the beginning of our Government down to this day in which the Supreme Court has held that an article which is pure, harmless, not deleterious, but an ordinary article in the business of the world, has ever been excluded from the interstate commerce of the country. I challenge the production of such a case. Why, one of the chief objects that induced the formation of our Government was to facilitate commerce. You will remember the Annapolis convention, the forerunner of the Federal convention, met for that purpose, and yet we are asked to vote for this bill whose aim is to destroy commerce, when our Government was formed to facilitate it.

When we look at all powers vested in Congress as trust powers to be used for the States as beneficiaries and as members of one family of Commonwealths, so to be used as to promote union and not disunion, to establish harmony and peace and not discord and hostility between the States, it must be inevitably predicted that the courts will never hold any law of Congress which prohibits, restricts, or ties interstate commerce, to be either necessary or proper as a regulation of commerce, but they must hold it to be a perversion of its trust power to the subversion of the fundamental principles of the constitution. (Tucker on the Constitution, vol. 2, p. 529.)

The broad doctrine laid down in the above paragraph, it may be said, has not been carried out by the subsequent decisions of the Supreme Court, for in Chapman *v.* Ames (188 U. S. 321) the court excluded lottery tickets from the channels of commerce; and in the Hipolite Egg Co. *v.* United States (220 U. S. 45) the Court upheld the pure food and drug law, which excluded impure food and drugs

from interstate commerce; and in Hoke *v.* United States (227 U. S. 308) the "white slave traffic act" was upheld, whereby a woman was forbidden carriage in interstate commerce for purposes of prostitution, and this case was followed by Caminetti *v.* United States (242 U. S. 470), in which the same doctrine was upheld.

Diseased meat, smallpox patients, infected articles of any character, have been excluded from commerce, and this principle has been affirmed in the cases of Railroad Company *v.* Husen (95 U. S. 465); Kimmish *v.* Ball (129 U. S. 217); Crutcher *v.* Kentucky (141 U. S. 60); and notably in a case that went up from Virginia, Brimmer *v.* Rebman (138 U. S. 78). How are these cases reconciled with the doctrine declared by Tucker, in the above quotation, when he says—

> • • • the courts will never hold any law of Congress *which prohibits, restricts, or ties* interstate commerce to be either necessary or proper as a regulation of commerce.

There is no conflict between that statement and these cases, and in a subsequent paragraph, in discussing the conflict between commercial regulations by Congress and the inspection laws and quarantine laws of the States, which may conflict with such regulations, he declares:

> A vessel proposes to enter the harbor of a State under congressional commercial regulations and the State, to protect its people from disease, quarantines it. These two powers seem to conflict, but they do not, except as both operate upon the movement of the vessel, though from different sources of power. The vessel is subject to two powers, which are entirely different but not in conflict. The State does not check a rightful object of commerce. It merely erects a bar against disease. Congress regulates the rightful object of commerce, under color of which it can not authorize wrongful commerce. It can not introduce disease, but may a rightful subject of commerce. The two powers are made to consist by restraining the State under color of quarantine from regulating rightful commerce and restraining Congress under color of commerce from regulating the unlawful importation of disease. (Tucker, vol. 2, p. 538; Compagnie Francaise de Navigation *v.* State Board of Health, 186 U. S. 380.)

This view has been strikingly sanctioned by Chief Justice Marshall in the great case of Gibbons v. Ogden (9 Wheat. 1), where he says:

It is no objection to the existence of distinct, substantive powers that in their application they bear upon the same subject. The same bale of goods * * * that may be the subject of commercial regulation may also be the vehicle of disease. And the health laws that require them to be stopped and ventilated are no more intended as regulations on commerce than the laws which permit their importation are intended to inoculate the community with disease. Their different purposes mark the distinction between the powers brought into action, and while frankly exercised they can produce no serious collision.

Rightful commerce the court recognizes as free and untrammeled, but there can be no rightful commerce in an impure or diseased article, or an article which is *per se* immoral, like lottery tickets; nor can there be rightful commerce in the transportation of persons for impure or immoral purposes. These are excluded, since it could never have been contemplated that this great Federal power should be the means of producing crime, disease, and immorality.

Two cases have been decided recently which control this case, and show as clearly as the noonday sun that this bill, if it becomes a law, will never receive the sanction of the courts. These are the child-labor cases. The first, Hammer *v.* Dagenhart (247 U. S. 251), was decided at the October term, 1917, and the other, Bailey *v.* The Drexel Furniture Co., decided May 15, 1922. The first case arose under a law which provided that no article made in a factory in which a child under 14 years of age had been employed during the past year could be carried in interstate commerce. This law having been declared unconstitutional by the court, another bill was brought into Congress and became a law, putting a tax of 10 per cent on the gross receipts of any mill or factory that employed a child under 14 years of age in the manufacture of goods. This was declared unconstitutional on the 15th day of May, 1922. Both decisions are far-reaching and important, and practically settle the unconstitutionality of this bill. For the first time in many years the court, with singular clearness

and force, has put its seal of condemnation upon the doctrine of *indirection*; a doctrine which has received the sanction of Congress in many cases, as seen in the legislation of the past few years.

Under these decisions a power given by the Constitution to the Federal Government for a specific national purpose can no longer be used by *indirection* for the purpose of controlling questions which belong to the States. The mask has been taken off and the real object of the law exposed, an object which the Federal power could not constitutionally control.

Hear the language of Chief Justice Taft in Bailey against the Drexel Furniture Co.:

> In the light of these features of the act, a court must be blind not to see that the so-called tax is imposed to stop the employment of children within the age limits prescribed. Its prohibitory and regulatory effect and purpose are palpable. All others can see and understand this. How can we properly shut our minds to it?

In these cases two powers were under consideration, the Federal power to regulate commerce between the States and the State's reserved power to control their children and their labor. The first, the commerce power, is under Federal control; the second, child labor, is under the absolute control of each State. Under our system neither power can destroy that of the other. If the one, the commerce power, can be used to accomplish what it is denied the right and power to do directly, the limitations on power are useless and absurd. If the labor of the child is, under our Constitution, controlled by the States, as decided by the Supreme Court, then if Congress by indirection could control that subject the State would be powerless to preserve its right.

Congress has no power to prohibit manufacture in a State, nor to prescribe the conditions under which manufactures may be created, but when the thing manufactured starts on its journey in commerce the Congress has a right to control it as an article of commerce. (Kidd *v.* Pierson, 128 U. S. 1; Hoke *v.* United States, 227 U. S. 332; De Witt *v.* United States, 9 Wallace, 47; United States *v.* E. C. Knight Co., 156 U. S. 1.) Congress had no power to prohibit the manufacture of whiskey in the States by law,

and therefore the eighteenth amendment to the Constitution was adopted.

[fol. 450] In the bill before us we find Congress denying the transportation of "Hebe" and other compounds from one State to another; but that is really not the object of the bill, for the denial of transportation is nothing but a denial of the manufacture of "Hebe" for "Hebe" is manufactured only to be sold; and if it can not be sold, as it can not be unless allowed transportation in commerce, then this bill is in reality a bill attempting to destroy the manufacture of an article in a State by Congress, which can not be done. Justice Day, in closing his opinion in the first case, does so in these impressive words.

> In our view the necessary effect of this act is, by means of a prohibition against the movement in interstate commerce of ordinary commercial commodities, to regulate the hours of labor of children in factories and mines within the States, a purely State authority. Thus the act in a two-fold sense is repugnant to the Constitution. It not only transcends the authority delegated to Congress over commerce but also exerts a power as to a purely local matter to which the Federal authority does not extend. The far-reaching result of upholding the act can not be more plainly indicated than by pointing out that if Congress can thus regulate matters intrusted to local authority by prohibition of the movement of commodities in interstate commerce all freedom of commerce will be at an end and the power of the States over local matters may be eliminated, and thus our system of government be practically destroyed. (Hammer *v.* Dagenhart, 247, p. 270.)

Chief Justice Taft, in his opinion in Bailey against the Drexel Furniture Co., after indorsing the opinion of the court in Hammer against Dagenhart, supra, uses this convincing language:

> The analogy of the Dagenhart case is clear. The congressional power over interstate commerce is, within its proper scope, just as complete and unlimited as the congressional power to tax, and the legislative motive in its exercise is just as free from judicial suspicion and inquiry. Yet when Congress threatened to stop interstate commerce in ordinary and necessary commodities, unobjectionable as subjects of transportation, and to deny the same to the

people of a State in order to coerce them into compliance with Congress's regulation of State concerns, the court said this was not in fact regulation of interstate commerce, but rather that of State concerns, and was invalid.

His language in another part of that great opinion, it is to be hoped, will not fall unheeded upon unpatriotic legislators:

The good sought in unconstitutional legislation is an insidious feature, because it leads citizens and legislators of good purpose to promote it without thought of the serious breach it will make in the ark of our covenant or the harm which will come from breaking down recognized standards. In the maintenance of local self-government, on the one hand, and the national power, on the other, our country has been able to endure and prosper for nearly a century and a half.

The voice of the great Chief Justice from yonder judgment seat is still resounding in these halls, calling us back once more to reinstate in this Government the clear, simple, essential principles of our Constitution; and yet we are asked to pass this bill in the teeth of what the court has just declared to be the law. If we are to live under a constitutional government, if under that government we have established a court whose duty it is to declare what we can do and what we can not do, how can we support a bill which the court has declared in a similar case is unconstitutional?

I am constantly in receipt of letters from patriotic men and women throughout the land, as I doubt not you are, asking my opinion as to the best mode of educating the people against socialism, anarchy, and all the "isms" that are threatening the country to-day. I know of no better start in that direction than that we who are charged with the legislation of this country should bow to the limitations of the Constitution as declared by the Supreme Court and not openly defy them. The employer or the laborer who breaks his contract, involving some necessary article for the public; the anarchist who would destroy our Government will find ample justification for their position in the action of this Republican House which continues to defy the Constitution of our Government which they are sworn to support.

Chief Justice Taft's opinion will be epoch making amid the confusion incident to the war, with legal restraints relaxed, with the Federal Government functioning in every direction under continuing war powers, with the people accustomed during the war to look to Washington for all things as the speediest avenue of relief. It was natural for them to forget on the return of peace that their State Governments were the natural channels through which their local needs were to be supplied. Not only that, but socialism, communism, and anarchy itself have, during these troublous times, lifted their voices demanding a change of government or an abolition of all government until the watchers on the towers of the constitutional citadels of America have become greatly alarmed. In this crisis, Chief Justice Taft's opinion rings out like an alarm bell in the night, calling back the wanderers to the constitutional fold, affirming the power of this Government to discharge all national and local powers safely under the Constitution, and giving hope and confidence again in the integrity of our Government.

In my judgment, it constitutes the greatest judgment of that great court since Ex parte Milligan and the Slaughter-house cases were handed down by Judge David Davis and Judge Miller. Along the highway of political progress the Supreme Court has erected many monuments to the cause of constitutional government and civil liberty, and among them, I dare venture to assert, no grander or more imposing one has been or will be erected than that by the hands of Chief Justice Taft in his recent opinion.

"I do not rejoice in this decision because it will allow child labor to be exploited and the lives of our future men and women to be sapped of their vitality by overwork in child labor, but I rejoice in it because its regulation, development, and enforcement will be restored to the States where it can be best and rightfully controlled. This decision will stimulate the States to greater effort in these directions and create a generous rivalry among them to make their respective systems the most perfect in the interest of the children of the country."

In the two child-labor cases referred to the court held that the laws involved showed a purpose to break up child labor, which was a State function and entirely under the

power of the State. The first was a fraud on the commerce power of Congress and the second was a fraud on its taxing power, for each was used for an ulterior purpose. In this case the purpose is equally clear, to drive out of the market, and thereby destroy, "Hebe" and the other compounds of skimmed milk and vegetable oils. The question whether "Hebe" should be allowed to be manufactured is solely for State determination, and Congress has no such power. (United States *v.* DeWitt, 9 Wall. 47; and cases cited, supra.)

It will be admitted that Congress has no power to pass a law prohibiting the manufacture of these articles, but Congress seeks by this bill, by indirection, to do this for it seeks to destroy the sale of the article; and if the sale be destroyed, the manufacture of the article is destroyed. On this point the evidence is conclusive. The report of the majority, submitted by Mr. Voigt, on this bill, page 6, unequivocally admits that to be the object of the bill:

> While the proposed bill will not prohibit the manufacture and sale of the compound within the limits of a State, the committee is of opinion that a law prohibiting the interstate shipment will suppress it, because a sufficient market can not be found without such shipment and also because a sufficient milk supply can not be found in many States which would warrant engaging in the enterprise.

And, further, in his evidence at the hearings, page 13, re reply to a question of Mr. Ten Eyck, Mr. Voigt said:

> I want to stop the manufacture and sale of this article, so far as it can be done by this form of bill.

He is asking Congress to stop the manufacture of this article, which alone the States can do, and which a number of States have already done.

Mr. Gray Silver, the Washington representative of the American Farm Bureau Federation, Washington, D. C., in his testimony at the hearings gave expression to the same view in the following colloquy:

> Mr. Voigt: Will you pardon me just a moment there? This bill will not put the skimmed-milk people out of business.
>
> Mr. Kincheloe: Not necessarily.

Mr. Voigt: It puts the substitute out of business.
Mr. Silver: That is the purpose of the bill.

There is other evidence to the same effect in the hearings. The Chief Justice, in his opinion, has stripped the mask from the child labor bill and has proclaimed the doctrine that the false face, or mask, which hides the real individual, can not and will not, prevent the court from dealing with the real individual behind the mask; and he has illustrated once again the futility of attempted deception so powerfully expressed in the story of Jacob and Esau, "the voice is Jacob's voice, but the hands are the hands of Esau." If Congress can not by indirection control child labor by invoking the power of interstate commerce when the court sees or knows from all the circumstances that it is the prohibition of child labor that is sought, how can Congress destroy the "Hebe" business by the denial of it in interstate commerce, when the court can see, with equal clearness, that the power of Congress is invoked for the destruction of a legitimate State business and not to facilitate commerce? Such a bill is a fraud upon the court.

This question is no new one to me or to this House. I remember distinctly in the Fifty-second or Fifty-third Congress that a bill was introduced to put a tax of 2 or 3 cents a pound on cottonseed lard. That was all. It looked like a clear revenue measure; and yet, what was back of it? Hog lard. The two articles were competing in the market, both valuable food articles, but the hog lard the most valuable, because it contained more nutriment it was said. Cottonseed lard, clean, pure, and good, could be manufactured cheaper than the hog lard, and therefore it was taking the market from the hog lard. Here was a clear, open field, but the hog-lard people, feeling the market slipping from them, determined that if they could get Congress [fol. 451] to use the great taxing power of the Federal Government to help them out in their hour of stress and impose a tax upon their competitor, they might survive the struggle. What a spectacle!

The attempt to use the greatest power of the Government, the taxing power, by one competitor against another to drive him out of business—and this in free America; and this in a country that boasts of equality of opportunity to all men; and this is the same dose that this great Republi-

can House is handing out to the followers of that great apostle of human liberty, Thomas Jefferson, who believed in the slogan "Equal rights to all and special privileges to none." It was a great fight, and I am happy to have been among those who aided in defeating such a proposition. I can imagine no more prolific cause of discontent and hostility to the Government than the adoption of such a principle as is carried in this bill. When the powers of the Government can be used to settle the question of competition in commercial life, the act becomes tyranny.

Pure skimmed milk—bad enough at best, for we all like a little cream on it—is more nutritious, I doubt not, than a compound of skimmed milk and coconut oil. But because pure skimmed milk is better than the other article, and costs more, is no reason why the other article should receive its death blow at the hands of the Government, which has promised all industries a fair show. I am bold enough to believe that there is not a man in Virginia, if he properly understands the object and purposes of this bill, who would not admit it is untenable. Because skimmed milk mixed with coconut oil is inferior to pure skimmed milk as a food product gives no right to destroy the one and exalt the other. This bill proclaims a new doctrine—that if Congress finds that one article of a certain class is best, that all others of the same class should be exterminated.

Take a few examples and see where such a doctrine leads you: Shorthorn cattle for many years were regarded by many as the best breed altogether to be had, but of late the Herefords and the Holsteins are looked upon with great favor. Now, suppose the Shorthorn people to prevent the competition of their breed with the Herefords and Holsteins, could get Congress to lay a tax of $5 per head on Herefords and Holsteins, or prevent Herefords and Holsteins from being carried in interstate commerce, could any honest man uphold such a law simply because the Shorthorn might be regarded with more favor that the others? Have not Herefords, Holsteins, and other breeds a place in the world for usefulness? Go ask the wives of farmers of this country whether they would indorse a proposition to have a tax of 25 cents per head upon all Plymouth Rock, Rhode Islands Reds, and Buff Orpington chickens because some people think the little White Leghorn is superior to all others because of its laying qualities. The White Leg-

horn may be the best altogether, but is there no place for the Plymouth Rock, the Rhode Island Reds, and the Buff Orpington? Are they to be taxed out of existence in favor of the White Leghorns or denied shipment in interstate commerce? Such laws are breeders of anarchy, for the anarchist might well say he would rather have no government than one which uses its power to set up one and destroy another.

I appeal especially to those who claim to be Democrats. We are preparing now to criticize the pending tariff bill in the Senate, which will soon be with us. We charge that our Republican brethen will, as they have done before, having gotten control of the Government, allow the great interests of the country to write their demands in that bill; that that bill, when it passes, will make some people richer and others poorer; and we have always denied the validity of such position; we have always denied that it was the function of government to make any man rich; that its proper function is not to put money in the pocket of any man, but to keep any man from taking money out of the pocket of his neighbor. If this bill is passed and shall become a law, it is an open invitation to any man in business who has competition to come to Congress and get Congress to lay a tax on what his competitor is selling on the specious plea that what he sells is not as good as his article and that what he is selling is better than that of his competitor, or if not put a tax on his competitor, deny to his product the privileges of interstate commerce and thus drive him out of business. From all such bills and all such tyranny, good Lord deliver us. Such things might do for Germany but not for America, "the land of the free and the home of the brave." This "skimmed-milk" diet is the feast to which this Republican House invites us and bids us feed upon. It is good for neither man nor beast and we will have none of it.

Mr. Hersey: Mr. Chairman, this is a bill to prohibit the shipment of filled milk in interstate or foreign commerce. The term "filled milk" [reading from the bill] means—

any milk, cream, skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried, or desiccated, to which has been added, or which has been blended or compounded with, any fat or oil other than milk fat, so that the resulting product is in imitation or semblance of milk,

cream, or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried, or desiccated.

My colleague from Texas [Mr. Jones] admitted that this product is a fraud. I asked him the question whether the foundation of one of these cans produced here in evidence was not skimmed milk, and he said yes. I asked him whether or not they could not be canned and circulated and sold as skimmed milk without any fraud. He said yes.

I asked him then the question, Why add to them something that could not be of any benefit except that it makes a fraud? And he admitted then that the adding of these oils, these mixtures that add nothing to the food product or to its healthful qualities, was simply to make this look like evaporated milk—condensed milk—to make it look like cream inside when it was open; to deceive the eye on the outside and on the inside.

Mr. Walsh: Mr. Chairman, will the gentlemen yield?

Mr. Hersey: I have but five minutes.

But if you admit it to be a fraud on the public, what becomes of the argument, the constitutional argument of the gentleman from Texas, that you have no right under the Constitution to prohibit a fraud in interstate commerce? The foundation of a prohibition in interstate commerce is a fraud that you are committing on the people. You do not argue further than that.

Mr. Jones of Texas: Mr. Chairman, will the gentleman yield?

Mr. Hersey: Yes.

Mr. Jones of Texas: I stated that whatever fraud, if any, was perpetrated by this was perpetrated by the retailer in disposing of it after it had left interstate commerce and had got into intrastate.

Mr. Hersey: I understood you to say it was a fraud to add to it.

Mr. Jones of Texas: It is a combination product, and it is so stated on the label.

Mr. Hersey: Did the gentleman not admit that in making these cans look like evaporated milk—the putting inside of it of different oils to make it smooth and look like cream—did you *do* not admit it as a fraud?

Mr. Jones of Texas: I did not admit it as a fraud. It is a combination product, and it is so stated.

Mr. Hersey: It must be constitutional to prohibit anything that tries to deceive the people—that a certain product is not what it is.

My friend from Texas [Mr. Jones] also cited certain cases, to wit, the child-labor cases, which have nothing to do with this question that is pending before us. The court held that the child labor law was unconstitutional because it attempted to prohibit in interstate commerce a product that was all right, not a fraud. The product of a child's labor upon its face is just the same as the product of adult labor. Clothing or anything else sent through interstate commerce could not be told by the looks of it whether a child worked on it or not. Therefore the product of interstate commerce being all right and not deceiving anybody, of course, you could not make it a crime to send it in interstate commerce. And the further decision, the late decision, he cites, the attempt to prevent it getting throught interstate commerce by taxation does no make it a crime. Crime is the foundation of it, and fraud is the foundation of the prohibition of interstate commerce to this article, and therefore it comes under the constitutional powers of the Government to regulate commerce. [Applause.]

A more detailed statement of the facts in this matter disclosed that the business of manufacturing and selling "filled milk" has become not only a money making and profiteering business, but is one of the greatest frauds now being perpetrated upon the public in the matter of food products.

The evidence before the Agricultural Committee shows that these large "filled-milk" factories buy from the farmers dairy milk. By a modern process they extract from the milk all the cream, butter fats, and practically all food products in the milk, leaving it the poorest skim milk that it is possible to produce. They mix this skim milk with coconut oil and other vegetable oils to give it the appearance of pure milk and cream, in its color, and in its smoothness and fatness. This is placed in cans of the same size and outward appearance as the ordinary condensed milk cans. They go further with the imitation and place upon these cans labels and inscriptions like this:

"Contents of this can is prepared in the rich dairying sections of ——" (whatever State the product is carried in) —and the further label that "The contents of this can is

[fol. 452] made from fresh, pure, cow's milk, with butter fats extracted and refined coconut fats added."

The outward appearance of the can would deceive everybody except those who have made a special study of canned condensed milk. It is sold for about 3 cents cheaper per can than the usual condensed milk, and the ignorant and poorer classes of people, being deceived by its appearance, are led to believe that "it is just as good," and by being cheaper than real condensed milk they purchase it and use it in the family the same as they would use pure condensed milk.

Doctor McCollum, of Johns Hopkins University, Baltimore, Md., testified before the Committee on Agriculture as to this "filled milk" as follows:

Doctor McCollum: The thing for us to do, gentlemen, is this: We are as a Nation now using approximately half a pint of milk per day per person. We are using very little of the green leafy vegetables, and we are using too much meat. The proper thing for us to do is to replace other things in our diet—we should take at least a quart of milk per day, or its equivalent, and we should reduce our meat consumption to approximately 5 per cent of the total energy value of the diet.

. . . . . .

I do not know how many children are fed on those substitutes for milk; perhaps none, but there is danger that there will be. How many ignorant people in the crowded quarters of the cities, how many foreigners who know too little English to read a label and to understand the finer points of the thing—how many of them are likely to feed an infant on this canned milk? I guarantee that any infant that is fed for a few weeks on one of these milk substitutes will develop rickets as severe as you see it right here. [Exhibiting photograph.]

Doctor Hart, a well-known medical authority, in his testimony before the Wisconsin Legislature, where a law was passed prohibiting the manufacture of this "filled milk," testified as follows:

This bill should pass if for no better reason than that an uninformed public is just as likely to buy the substitute as

it is to buy the genuine article, namely, the evaporated whole milk. The nutrition of the American people should always be liberal. For direct consumption we should never allow as valuable a product as whole milk to be in any way tampered with. The condition into which the people in middle Europe sank during the war in respect to their nutrition ought to make us emphatically insistent upon the use of a liberal dietary for ourselves and our children. The substitution of the inferior coconut oil for the superior butter fat in a product like milk is a thing that the public should not tolerate for one moment.

Charles W. Holman, secretary of the National Milk Producers' Federation, testified before the same committee as to this "filled milk," as follows:

Mr. Balderstan, representing one of our member organizations, has very adequately expressed the view of the federation as a whole. I wish in support of that to read a part of a resolution adopted and subscribed to by our federation in Chicago on May 3 and 4 of this year:

"In recent years a compound made of condensed skim milk and coconut oil has been placed upon the market. The manufacturers of this product, commonly known as filled milk, claim that it provides a market for skim milk. This claim is not well taken, for instead of providing a market for skim milk it destroys a market for butter fat. In 1920, 7,000,000 pounds of coconut oil were used in the manufacture of filled milk; and as a result a market for 7,000,000 pounds of butter fat was destroyed and 8,000,000 pounds more butter was placed upon the market. In other words, the coconut cow of the South Sea Islands replaced 40,000 cows owned by American dairymen; and the price paid for skim milk to make this compound was not equal to what the live stock of the farm would return for it.

"Moreover, this compound is sold as milk, and when sold as such is a counterfeit. A fraud is perpetrated upon the consumer. It does not contain the nourishing properties of milk, which is the fundamental food of this Nation, and no producer has a right to so imitate it that the consumer is likely to be deceived. The dairy industry must be protected from this counterfeit and the consumer from deception: Therefore be it

"*Resolved*, That legislation be enacted to prevent the manufacture and sale of compound of milk, skim milk, and vegetable oils for human consumption."

Likewise, at Buffalo, on July 8, we passed a resolution as follows:

Resolution Adopted by the Conference of Dairy Interests, held at Buffalo, N. Y., July 8, 1921

Whereas there is an alarming increase in the manufacture, sale, and consumption of bogus milk products, consisting of compounds of skimmed milk and coconut oil or other vegetable fats; and

Whereas such products, regardless of the labels on the containers, are being sold in large quantities as condensed milk and other milk products, thereby at once becoming a fraud on the consuming public as well as a menace to the public health and to the dairy interests: Therefore be it

Resolved, That we favor the abolition of such traffic by Congress by direct prohibitory or restraining laws.

Gray Silver, representatives of the American Farm Bureau Federation, testified before the same committee as follows:

The dairymen of this country believe that very few of the people who consume the 86,000,000 pounds of filled or imitation evaporated milk realized that they were using skimmed milk and cocoanut oil instead of the condensed whole milk containing the fat vitamines so essential to the growth and development of humans and especially babies.

Aside from the various refinements or slight modifications of the process, filled condensed milk is manufactured by skimming the cream from the whole milk and then substituting coconut oil for it. In taking away the butter fat the life-sustaining fat soluble vitamines are removed and in its place is substituted oil which does not contain the vital growth-producing substances. Blindness and death ultimately follow the use of food lacking in vitamines. There are other sources of vitamines, according to the scienfists, but mothers are not in the habit of feeding large quantities of kidneys, liver fats, carrots, and yolk of egg in order to obtain the fat soluble vitamines which is well and handily supplied in milk.

The production of evaporated milk from which part or all of the fat has been skimmed and vegetable oils substituted has nearly trebled in the last four years in this country. It is a business which thrives upon the dairy business, has its very foundation in the dairy industry, and yet one which, if continued, will work untold damage to it, for the modified or imitation evaporated milk is being sold as the true product. In 1917 the output of imitation or filled evaporated milk was about 40,000,000 pounds. This increased steadily until in 1920 about 86,500,000 pounds were produced. In the manufacturing of this amount of condensed filled milk there was removed about 7,605,000 pounds of butter fat and virtually the same number of pounds of vegetable oils was substituted, since about 9 pounds of oil is used to each 100 pounds of evaporated product. This virtually destroys the market for about 7,500,000 pounds of butter fats. But its effect is much further reaching than that. It is a matter of vital concern to every dairyman in America.

When the manufacturer labels condensed filled milk in such a way as to show it is condensed skimmed milk and cocoanut oil instead of the whole milk containing butter fat, they neglect to advise the public of one big factor, namely, that the very life of the milk was taken from it when the butter fat was extracted. Labels on cans of condensed filled-milk products advise consumers to use it in the making of custards, cake, and general cooking and for use in coffee and cocoa. They do not state, however, that the milk is lifeless and does not carry the necessary ingredients for health of humans, particularly babies.

So important has become the issue that already four States have not waited upon the Federal Government to pass a law protecting the people, but have passed State laws prohibiting the manufacture of filled milk. These laws are found in Wisconsin, Maryland, Ohio, South Carolina, and Florida, and bills have been introduced in New Jersey and Pennsylvania.

* * * * * * *

Coconut milk versus cow's milk. The only reason for the manufacturing of this product, filled condensed milk, is that it can be sold at a cheaper price. It is generally under-

stood that when two products are believed by the public to be the same—and that applies generally to filled condensed milks and the regular condensed product—that the cheaper one will force the higher priced product off the market. It is a significant fact that at the time when evaporated and condensed milk declined 50 per cent in 1920 from the high record of 1919 imitation condensed milk with the coconut oil and skimmed milk increased 24 per cent. The consumer did not materially benefit by the substitute, as the price asked was only slightly lower then than for the genuine health and growth producing condensed milk.

The dairy industry, of course, does not wish to see itself destroyed by a by-product.

Until all the States in the Union have passed laws prohibiting this fraud upon the public the plain duty of Congress is to immediately enact this bill prohibiting the shipment of "filled milk" in interstate commerce. [Applause.]

Mr. Jacoway: Mr. Chairman, I yield 10 minutes to the gentleman from New York [Mr. Ten Eyck].

The Chairman: The gentleman from New York is recognized for 10 minutes.

Mr. Ten Eyck: Mr. Chairman, I ask unanimous consent to revise and extend my remarks.

The Chairman: The gentlemen from New York asks unanimous consent to revise and extend his remarks. Is there objection?

There was no objection.

Mr. Knutson: Mr. Chairman, I make the same request.

The Chairman: Is there objection to the request of the gentleman from Minnesota?

There was no objection.

Mr. Ten Eyck: Mr. Chairman, I wish to request unanimous consent to revise and extend my remarks in the Record after I have concluded. I desire to introduce into the records my recommendations and correspondence with the chairman of the Joint Commission of Agricultural Inquiry when the work of the commission started, because I want the farmers to know that I am acquainted and familiar with the needs of agriculture and its conditions at the present time, as well as its position to other interrelated industries. I

wish them to know that I have done my bit in Congress to correct the evils that exist with agriculture. I do not want them to feel that I am not in sympathy with their problems and interests, when I object to recommendation No. 5 in this report, which recommends that the Government enter into immediate negotiations with the Dominion of Canada for the conclusion of a treaty for the improvement of the St. Lawrence River. I assumed this position with an intimate knowledge of the requirements of agriculture, both present and future, and feel that this recommendation is carried through to an ultimate conclusion, it will be detrimental to the farmers' interests in this country, and I am opposing it with a sincere desire to do that which I believe to be for the best interest of the farmers of the country.

I wish to ask the gentlemen of this House who are members of the Joint Commission of Agricultural Inquiry, who voted to place this recommendation in the report, to explain to the House why they inserted this recommendation in the report, what information they have at hand, what knowledge they have

. . . . . .

[fol. 453] The prominent things, however, as per our previous conversation, I beg to set forth as follows: Farm credits and farm banking; transportation rates, transportation service; transportation—water and rail; transportation—joint terminal facilities.

Marketing: Domestic and export; cutting spread between producer and consumer; cost of production to the farmer; farm accounting; cooperative bargaining; labor supply stations; farm stores and cooperative storage on farm and at joint terminals; statistical reports—domestic and foreign.

The appointment of a farm attaché in the American Consul General's offices in foreign countries for the purpose of securing agricultural statistics; farm living conditions; comparison of cost of production and cost of sale of farm products and cost of production and purchase price to the farmers of all commodities used by him; farm educational system on agricultural subjects; improvement in distribution of farm products, by elimination of the handling, and cutting the cost.

All of the above I set forth more in detail in my summary of agricultural and interrelated pursuits bearing upon the

agricultural industry for consideration of the committee on June 25, 1921.

Hoping this is the information you desire, I beg to remain, with kind regards,

Very sincerely yours, Peter G. Ten Eyck.

October 31, 1921.

Hon. Sydney Anderson, *Chairman Joint Commission of Agriculture Inquiry, Capitol, Washington, D. C.*

MY DEAR MR. ANDERSON: Referring to the printed report which you have submitted to the Joint Commission of Agricultural Inquiry for their correction and approval, beg to advise that I feel, as expressed to you at the meeting held last Friday evening, that the joint commission should not only issue a report setting forth in a general way from information received the cause of the troubles in the various agricultural pursuits at this time, but should make some definite recommendations as to what should be done, both by the farmer and the consumer, regardless of legislation, and by the legislators to relieve farm conditions and strengthen the agricultural industry of the country.

I believe that we realize that there are several fundamental causes for present-day conditions, such as the following:

(a) Farm credits.
(b) Cost of transportation and service.
(c) Local, domestic, and foreign marketing.
(d) Cost of spread and distribution between producer and consumer.
(e) Cost of production and labor.

So that you may understand more thoroughly what I mean, I will submit for consideration and recommendation in our report several of the things which I believe we should recommend for correction:

1. That suitable banking opportunity should be inaugurated to give to the farming industry of the country the same banking facilities on their turnover that all other industries receive to-day. There is a great need for the extension of time on discount loans to the farmer from nine months to one year. This can be accomplished by authoriz-

ing the Federal reserve bank to extend their discount time on farm products to the length of time of their turnover. The extension of credit by local institutions and the establishing of additional facilities where necessary.

2. That suitable accommodations for marketing be established, with a view of lowering the cost of spread so as to reduce the cost of distribution between producer and consumer.

3. Recommend to the farmers that they organize for the purpose of cooperative bargaining.

4. That the railroads reduce their rates on farm products systematically and scientifically, giving due regard to the localities of production and the localities of consumption.

5. That suitable and adequate joint terminal facilities be installed connecting the railway, waterway, and highways, and that sufficient and efficient terminals and proper warehouses be located at export ports with accommodations for farm products to be shipped abroad.

6. That the necessary merchant marine for the transportation of farm products be constructed and operated so that a continuous and even trans-Atlantic and Pacific water way route to meet the demands of our foreign commerce be established.

7. That public markets be built in each of our cities for the mutual use of the farmer and consumer.

8. That an attaché or Government agent be placed in each consular agency abroad, whose sole duty will be to obtain information as regards the farm industry of that particular locality or country, so that he may obtain authentic information as regards the amount of crops raised, the amount of produce stored, the amount consumed, the amount imported by the Government and from whom imported, and the amount imported from each country, and such other information as regards the method of growing, kinds of seeds used, and kind of food consumed in his particular locality.

9. That farmers inaugurate a system of cost keeping, so that he may ascertain what crops are most profitable in his

locality, with the purpose of growing that which is best adapted to their particular sections.

10. That the farmers cooperate in establishing and building co-operative community storage warehouses to carry their produce from seasons of production over the entire season of consumption, and upon which warehouse receipts could be issued, which would be accepted as collateral at banks, etc., thus standardizing their products of diversified farming.

There are many others of more or less importance which the joint commission will undoubtedly desire to add to this list, which I submit merely for the consideration of the entire joint commission for recommended improvements in the farming industry of the country.

Respectfully yours, Peter G. Ten Eyck.

November 28, 1921.

Hon. Sydney Anderson, *Chairman Joint Commission of Agricultural Inquiry, Washington, D. C.*

MY DEAR MR. CHAIRMAN:

In reply to your request of to-day as regards my suggestion in relation to recommendations as regards our report and the proposed legislation for the extension of credits to the agricultural interests, beg to advise that I feel it is essential that the reserve bank should be authorized to rediscount farm paper for the full time of the turnover of the farmer's products which are given as collateral on his loan at a local financial institution, other than what is known as the three-year turnover of the cattle-raising industry.

I believe that this committee should seriously consider the advisability of restricting all member banks of the Federal reserve bank as regards the maximum interest rate charged their customers on money received from the Federal reserve bank, permitting them to charge only a certain percentage of the legal rate which obtains in their respective States by law in which the loan is made, in addition to the rate which is charged them by the Federal reserve bank.

Very truly yours, Peter G. Ten Eyck.

December 9, 1921.

Hon. Sydney Anderson, *Chairman Joint Commission of Agricultural Inquiry, Washington, D. C.*

MY DEAR MR. CHAIRMAN:

Referring to the difference of opinion of the various members of the commission as regards our report on finance, and the opinion of the members that we should make direct recommendations, in accordance with my suggestion, that the various members of the commission submit to you such recommendations they care to suggest for embodiment in the final report, in addition to issuing a statement setting forth a summary of our hearings as regards agricultural credits, I beg to recommend the following:

1. That farmers and live-stock producers be accorded the same banking facilities that all other business men receive.

2. That so-called short-time loans be furnished to them from six months to three years to meet their requirements, extending the loan to meet the time of the turnover on various products of the farmer.

3. That the banking system of the country be so organized that all the banks who loan to the farmers will obtain discount facilities to the fullest extent possible, commensurate with the security which they present.

4. That a medium of discount be established for all the banks which loan to the farmers so that farm paper will have discount rights in the Federal reserve bank.

5. That all the banks that rediscount farm or other paper be restricted as to the additional amount of interest they charge to their farmer customers over that which they pay to the rediscount bank.

6. That banking facilities be provided for the farmer so that his products can be utilized for basic credit to the fullest extent possible, and the banks be authorized to accept loans with proper warehouse certificates as collateral, and suitable and adequate arrangements for the discounting of agricultural paper for the full length of the time of the turnover of the product on which the loans are negotiated.

Very sincerely yours, Peter G. Ten Eyck.

Joint Commission of Agricultural Inquiry,
Washington, D. C., December 13, 1921.

Hon. Peter G. Ten Eyck, *House of Representatives, Washington, D. C.*

MY DEAR MR. TEN EYCK:

This will acknowledge yours of the 28th ultimo, containing recommendations with respect to the credit report. I shall be glad to lay the suggestion before the commission at its next meeting.

Sincerely yours, Sydney Anderson, Chairman.

The Chairman: The time of the gentleman from New York has expired. The gentleman from Wisconsin [Mr. Voigt] has 36 minutes and the gentleman from Arkansas [Mr. Jacoway] 25 minutes remaining.

Mr. Voigt: I yield 10 minutes to the gentleman from Pennsylvania [Mr. Gernerd].

Mr. Gernerd: Mr. Chairman and gentlemen of the committee, the Nation prospers and advances in proportion as its population conserves its physical strength. The vitality of the race is dependent upon the health of the parent and the care with which the infants are nourished. One of the greatest factors underlying this vital question is the character of our food supply. It has only been in recent years that real serious thought has been given to this subject. The great insurance companies of America have made so many startling observations of the marked decline in the health of men after they pass the age of 50 that the medical profession all over the world began to direct its attention to the causes that produce this alarming fact.

Investigations and careful experiments have demonstrated the unerring truth that we are grossly negligent in the character of the food that we eat. We crave after the things that please the eye and gratify our taste, but which lack the essential quality that preserves our health and insures longevity of life. Apoplexy, heart failure, and Bright's disease have proven far more deadly to the men of 50 than did all the fearful and tragic attacks of the enemy in the late war. Have we forgotten the great crusade that was begun less than 20 years ago and carried on with such

relentless zeal ever since to arrest infant mortality? Almost immediately it was discovered that the great cause of this scourge was impure milk which was being fed to babies throughout the land. Every effort was made to correct this startling discovery; there was not a city in the country that did not pass rigid ordinances regulating their milk supply and employ every effective means for its enforcement. State legislatures passed laws for the purpose of enforcing sanitation and inspection of the great herds of dairy cattle in order that the germs of infected cattle might not be transmitted in the food; in addition, a vigorous campaign of education was inaugurated, with the result that thousands of our infant population were saved during the last decade and the general health of the Nation conserved.

It has been demonstrated beyond question that one of the basic foods of our people should be the pure and whole-[fol. 454] some milk of the dairy cow; it possesses a quality of food value essential to real health. We are reliably informed that the American people consume daily but one-half pint of milk per capita, whereas our natural consumption should be a quart a day. Rickets in infants, pellagra, and low blood pressure are the chief characteristics of those suffering from lack of proper nourishment. Men are walking the streets by the thousands apparently in the best of health, who upon physical examination are found to be undernourished, caused by the lack of proper food. As a nation we are just beginning to appreciate the importance of health conservation. This is evidenced by the universal establishment in every community of a well-regulated public health service. Realizing, then, the importance of having a strong, vigorous, and healthy population, and that largely our national happiness and prosperity is dependent upon it, we are considering a bill to-day that presents to us a situation, fraught with real peril, unless we in our wisdom shall promptly act to prevent its further progress.

This bill seeks to prevent the manufacture and sale of filled milk. You will ask, What is filled milk? It is an imitation of condensed or evaporated milk, made by mixing condensed skimmed milk with coconut oil. Condensed or evaporated milk is condensed whole milk, with all of the cream and butter fat as produced from the cow, whereas filled milk is manufactured by skimming the cream and removing the butter fat from the natural milk and substitut-

ing in place of it coconut oil. Whenever the cream or butter fat is extracted from the whole milk and coconut oil is substituted the product loses its nutritive value. No one has contended that coconut oil possesses any real food value. Whatever food value this filled milk possesses is in the skimmed milk with which the coconut oil is mixed. We all appreciate the insignificant value of skimmed milk in our daily experiences; everybody conversant with the subject acknowledges that this filled milk substitute possesses none of the high food values that are contained in condensed or evaporated milk; it is a fraudulent substitute. What, then, has prompted its manufacture? During the year 1920, 86,561,000 pounds of this filled-milk product was made and sold, and in its manufacture nearly 8,000,000 pounds of coconut oil were used. It has been shown that it costs 86 cents per case (of 12 cans) less to manufacture this milk compound than pure condensed milk, and that it is sold upon the market in carload lots for $1.40 per case less than is realized for condensed milk. Why, then, should this new product have such a marvelous demand when it has but little of the great food value that is found so abundantly in the legitimate product?

It is easy to understand the reason if we but realized that it costs considerable less to manufacture than that of condensed milk, so that its producers are able to engage in unfair competition with the legitimate producers of condensed milk. Coconut oil sells for 12 cents per pound, while the market price of butter fat is 36 cents per pound. These manufacturers have expended huge sums of money in spectacular advertising, skillfully leading a large public to believe that it is as good a product as condensed milk, and that it is a substitute, selling for less money. So adroitly have they introduced their brands that millions buy the substitute, believing it to be real condensed milk. The retail stores have been selling it for the same price per can as they have been getting for the legitimate article.

Mr. Watson: Will the gentleman yield?

Mr. Gernerd: Not now, thank you.

It has been shown that 156 stores in the city of Washington have been selling it as a milk product and classing it with condensed milk. Unfortunately very few merchants that sell this compound are aware that it does not possess the same food value as condensed milk, and in their ignorance

they stimulate its sale for the reason that they can buy this substitute for $1.40 per case less than they can purchase the legitimate article. These producers of this milk compound nowhere pretend that it possesses any superior quality over that possessed by condensed or evaporated milk, but, on the contrary, every method is employed to deceive the public in believing it to be a similar product and as good as condensed milk.

So successful have they been in the sale of this product and the growing demand for it that they are alarmingly and seriously encroaching upon the legitimate manufacturer who puts forth the real product, that he is in danger of being put out of business or else forced to manufacture a similar article in order to meet this vicious and growing competition. It is a most palpable fraud upon the public and a great injustice to the manufacturer of condensed milk.

Thousands of mothers are compelled to use condensed milk in the feeding of their infants, and through many years of persistent efforts and experimentations whole milk has been placed upon the market free of all impurities and still retaining the great nutritive value that fresh milk possesses. To-day thousands live in tenement houses and apartments where the question of a fresh milk supply is a most difficult and serious problem. There are many localities throughout the country where it is impossible to serve fresh milk. This is especially true in many of our mining localities who are far removed from pasture lands. Under these circumstances it was but natural that condensed and evaporated milk should find an established place in so many of our homes. The people have learned its use with perfect safety and appreciate its wholesomeness. It has become an indispensable part of the family table. Everyone has absolute confidence in its food value. So universal has become its use that last year we consumed approximately 1,500,000,000 pounds of condensed milk.

How can we, then, in view of these facts, permit an imitation milk product which to all appearances possesses all of the characteristics of real condensed milk as to color, taste, and consistency and which requires an expert to make a chemical analysis in order to discover the deception?

Are we going to exercise a rigid supervision over our fresh milk supply by having daily inspectors inspect the milk and determine whether it has been watered or tam-

pered with and whether it contains at least a butter-fat of 3 per cent, and then, on the other hand, permit the manufacture of a milk compound that is free of the essential ingredients that we demand in our fresh milk supply? Such a situation is plainly unjust and inconsistent.

These producers of milk compounds would have you believe that they are a great aid to the dairy industry of the country, because they allege that they consume about 200,000,000 pounds of skimmed milk per annum in the manufacture of their product. To my mind nothing could be more absurd than such a contention, for any inferior and deleterious product that is sent forth in the market in competition with the legitimate product is not a stimulus to that industry, but is a serious menace and maliciously destructive. Shall we permit these men to continue to profit at the expense of the Nation's health and the many years of toil and persistent efforts of the dairy farmer? Are we going to hinder the growth and further development of this life-preserving industry? Are we going to stand by the farmer who by great vigilance watches his herd, gathers his milk, and sends it to the market to feed us, or are we going to embarrass him by permitting a fraudulent substitute competing with his real product? Shall we permit the innocent babe to drink this foul and deceptive imitation? It is a most nefarious enterprise, and I trust our action here today will put an end to these conscienceless promoters who would build castles of wealth over the dying babe that struggles for life while innocently drinking this concoction of coconut oil while its anxious and loving mother wonders why its little cheeks are falling in and its lifeless limbs appear so withered. Let us stand by the babe of the Nation and the dairy cow. [Applause.] May her marvelous stream of life-giving milk ever flow on in all its purity; may she always continue to impart the God-given gifts as she gathers them in the green pastures amid the sweet-scented flowers and the babbling brook, and in that mysterious way of nature transmit to humanity life, happiness, and a spark of the Divine. [Applause.]

Mr. Jones of Texas: Mr. Chairman, I make the point that no quorum is present.

The Chairman: The gentleman from Texas makes the point of no quorum. The Chair will count. [After counting.] One hundred and twenty-two Members present, a quorum.

Mr. Voigt: Mr. Chairman, I yield 10 minutes to the gentleman from Minnesota [Mr. Clague.]

Mr. Clague: Mr. Chairman and gentlemen of the committee, the reason I am in favor of the present bill is that it is going to wipe out a product that is and has been placed upon the market and sold to the people as a food substance known as filled milk, which is a deception, a fraud, and a counterfeit. It is not the natural product. It is made by taking all the butter fat out of the real milk and then putting in the lifeless skimmed milk, a counterfeit substance, in place of the butter fat, and this resembled product, or filled milk as it is called, is an exact imitation of real milk. In many places it has been sold as cream and sold in bulk. I happen to be a member of the Agricultural Committee and had the privilege of hearing all the evidence that was given before the same. During the time that the hearings were held I made a little investigation around the city of Washington for the purpose of finding out whether or not this substitute was sold in the city of Washington. Several of the witnesses who appeared before the committee in opposition to the bill stated that this substitute was just as good as the average condensed milk. Here is a can of Carnation brand [fol. 455] of evaporated milk. I also have before me a can of Hebe, or a substitute known as filled milk. You will observe that the substitute looks the same as the genuine evaporated milk, and if any of you gentlemen can tell the difference in taste or any difference in the appearance, I would like to have you do it.

Mr. Raker: The Hebe looks a little more like cream.

Mr. Clague: Perhaps it does in this instance, but they ordinarily look the same. As I stated, I made an investigation about a year ago, going to 25 or more stores in the city of Washington, most of them on the outskirts. In all of the stores I asked for evaporated milk, and in at least two-thirds of them they stated that they did not have the Carnation or the Borden brand of evaporated milk but they had a substitute which was just as good. The substitutes were Nutro, Hebe, and other brands of filled milk. In most of the stores the substitute was being sold from 1 to 2 cents lower than the pure-milk brands. I was invariably informed that these substitutes were just as good as evaporated milk, and were just as good for all general purposes. I made an investigation at one of the leading stores on

Pennsylvania Avenue and asked for evaporated milk, and the storekeeper stated: "I don't have Borden's or Carnation. I usually carry them, but I have here the Hebe, a substitute, which is just as good for all purposes." It was about that time that the labels on the cans were changed. About a year ago these substitutes did not have on the cans the words, "Do not use in place of milk for infants," but it was printed on the cans that the substitute was good for all general food purposes, and it was sold to the patrons for the use of children and for all food purposes. In many instances I purchased cans of the substitute filled milk, and upon examination I found it impossible to tell the difference between the substitute and the genuine article. The substitute is made the same color, so that the ordinary person can not tell the difference in appearance. The same amount of solids are used in it that the law requires for evaporated milk. It tastes and looks like pure milk. The housewife can see no difference, because it takes an expert to tell the difference between the fraudulent substitute and real milk.

There is the trouble. This substitute is a pure deception, a fraud, and a counterfeit. In these substitutes the whole butter fat is taken out. There is no life-giving substance in it, and therefore if it is not good for infants it is not good for adults.

The gentleman from Virginia said something about it's not being good for infants. What is the natural food for infants? All will admit that it is milk. When a mother goes to the store and buys this substitute and it is sold to her as it has been in the past for something just as good as pure milk, that is a deception and a fraud and should be prohibited from being sold.

I made another investigation within the last 10 days in this city, going to most of the stores that I visited about a year ago. I found that I could not buy a single can of Hebe or other substitutes in any of these stores. I went to the same store on Pennsylvania Avenue that I did a year ago and asked for Hebe or a substitute milk, and the storekeeper stated: "My friend, I am not selling it any more." I said, "But you said last fall that it was just as good as the real milk." He stated: "I have learned that it is not and the Government has put it out of business. It was represented to me, when I bought it, to be just as

good as the real milk and I sold it honestly, believing it to be so. But I have since found out that it is not."

I went out on Fourteenth Street to some other stores on the outskirts where they have been selling it, and was informed by the various merchants that they did not keep it in stock and were not selling it, that they had found out that it was a fraud and they did not want to impose it upon their customers, and as a result of my visit to 31 stores within the last 10 days I could not purchase one can of this substitute, filled milk, which shows that either the merchants of this city want to do an honest business or that the people have learned that this substitute is worthless and will not purchase the same.

Mr. Raker: Will the gentleman yield?

Mr. Clague: Yes.

Mr. Raker: How did the Government put this man in the Pennsylvania Avenue store out of business?

Mr. Clague: Well, the Government did not put him out of business, but the substitute was found to be a deceptive product and the Government put certain regulations in the way of requirements on the labels. People became better acquainted with its being a deception, and no doubt the merchants did not care to handle it and thereby deceive their customers.

Mr. Raker: The gentleman has poured out in a glass some of this substitute called Hebe and also poured out in the glass a can of the Carnation evaporated milk. The Hebe looks like delicious cream, and nutritious. I would like to ask the gentleman if there is any nutrition in this substitute?

Mr. Clague: Professor McCollum, who appeared before our committee, says that it has no nutritive value; that a rat fed on it for 60 days would die. You can test these two—one is pure Carnation evaporated milk; the other, Hebe, is a filled milk, a substitute for milk. You will see that the Hebe has a very creamy color and a creamy taste, but is wholly void of butter fat or vitamines. It tastes as good as the finest of milk, but is a fraud in so far as having any nutrition substance. Gentlemen of the committee, there is only one thing about it, and that is that this filled milk is a pure fraud, and the fraud is largely perpetrated upon the ignorant and poor people. The ignorant people in the cities to whom it is sold know nothing

of the merits of the same. They are buying it, believing that it is fully as good as the real milk, and supposing that it is good for children and for cooking purposes and that it is legitimate evaporated milk, when, as a matter of fact, they are getting something that contains no life substance whatever. This substitute is being largely manufactured and has tended and is now tending to injure the sale of genuine milk. All legitimate creamery men are opposed to its sale. Our farmers are opposed to the substitute for the reason that it is a counterfeit and a fraud, and I am firmly of the opinion that the great mass of people would not buy it if they understood that it had no nutritive value. I am opposed to the manufacture and sale of these substitutes for the reason that they are valueless as a food product, deleterious, and injurious to the public health.

Mr. Jacoway: Mr. Chairman, I yield five minutes to the gentleman from Mississippi [Mr. Sisson].

Mr. Sisson: Mr. Chairman, I think there is only one question in this whole proposition for us to consider, and that is whether or not this is a deleterious food. If it is not a deleterious food, even though it does not have all of the food value that good, fresh milk has, then it is nothing less than a crime to stop its manufacture. I say that it is a crime; and I want it understood that I mean that in its length, breadth, and thickness. I do not think there is a more infamous creature on the face of the earth than one who would make either food, clothing, or building materials scarce. All wealth is made up of those three things—food, clothing, building material. Some of the modern political economists add fuel; but, as is said by Smith, fuel produces heat, which is a substitute for clothing and is used to manufacture clothing and to prepare food and building material, and it ought not to be put in as a separate class of wealth. Every human being ought to know that anything which tends to make food, clothing, or building material scarce is an enemy to the human family. The problem in the next few generations is going to be whether or not you will be able to feed the world, whether they will be able to get a proper amount of good food supplies.

Only a few years back it was contended that the tomato, which was then known as the love apple, was poison, and there were men who thought it an outrage to try to per-

petrate that horrible food upon the people. If they had had men in Congress at that time that we have here now, there would have been somebody rising up and saying we should pass a law to protect the people against that horrible poison. There is not a reputable physician who has investigated this matter who will tell you that "filled milk" is a deleterious food for man. Not a one. They say it is not good for babies. No. But are you going to stop the sale of breakfast bacon because breakfast bacon is not good for babies? Turnip greens is a good food, but it is not a good food for babies.

A Member: What is that?

Mr. Sisson: Turnip greens. Why, Mr. Chairman, a gentleman who expresses ignorance on turnip greens is not fit to be in Congress. [Laughter.] Those people who come here to-day making a great outcry about this article of food upon the theory that it is deleterious to babies are putting up as much of a camouflage as they say the manufacturers are committing on the people in selling the article itself. They know they do not oppose it because of any such thing as that, but they favor this bill because this food is coming in competition with dairy products. Why not have the nerve to tell the truth about it? Why run around and get experts to come here and say that it is deleterious? You know very well that it is not deleterious. There is not one of you who does not know that it is not deleterious, and yet you want Uncle Sam to come along and protect you against competition. You never give the people who want cheap food a thought. A great many manufacturers of clothing in this country manufacture and sell clothing which they say is all wool and a yard wide and warranted not to run down at the heel, when there is not a single thread of wool in it.

[fol. 456] The Chairman: The time of the gentleman from Mississippi has expired.

Mr. Jacoway: Mr. Chairman, I yield five minutes more to the gentleman.

Mr. Sisson: Take socks. They are sold all over this country, and stockings, too, as being all silk, and the label on the box says that they are all silk, when there is not a single fiber in them that was not, perhaps, raised down in my cotton patch in Mississippi. It is nothing but mer-

cerized cotton. I see a pair here now, nice-looking socks, with not a line of silk in them—all Mississippi or southern cotton—and yet these same people are in here yelling like a lot of Comanche Indians about this foodstuff not being labeled right. I do not object to your labeling it just as it should be and I am willing to require every article sold to bear a true label.

Mr. Chindblom: What is the label on the can?

Mr. Sisson: Oh, there is too much of it there to read now. It will take up too much time, but I will hand it to the gentleman and let him read it at his leisure. When a contest arises like the contest a few years ago between two baking powders, it is something that is likely to ruin splendid reputations. Two men of national reputation got into a contest over baking powder. The contest was fierce. It came near ruining one administration since I have been in Congress. The Secretary of Agriculture said that one baking powder was good and the other bad, and a certain noted physician took the other side—one saying it was good and the other saying it was bad. In other words, the matter was a conflict between two selfish interests. If one won, he had a monopoly and a fortune; if he lost, he lost all and was ruined. This is the same fight here.

The constituent elements that enter into this compound, under the pure food law, ought to be put on the label on the can. I do not believe it should be necessary to put on there a legend to the effect that it is not good for babies. On the contrary, I think it would be an outrage to put on a legend that it is good for babies. If they want to, let them say that it is not to be used in coffee or for babies.

Under the English law the principle of caveat emptor, which applies in America, does not apply. Caveat emptor is the horse swappers' law in America. It means that when you buy a horse from a fellow you better beware. You buy or swap for him at the end of the bridle. Caveat emptor applies in all of our business, and more frauds have been perpetrated on people in America than in any other country in the world. Ours is the only country on earth where they will not take our samples for the entire contents of whatever package we are selling.

Why, because caveat emptor does apply. My view of the matter is that every State in the Union ought to pass a law providing that whenever one buys a piece of cloth

ing as all wool, it ought to be all wool, and if you can prove it is cotton, he ought to be sent to the penitentiary for obtaining money under false pretenses. Our business ought to be straight and square. Here you are endeavoring to destroy a food which no reputable physician will say is bad. Something has been said about rats. Why, bless your soul, you can take rats and give them an exclusive diet of fresh condensed milk every morning and they die as quickly as if you gave them this food in this can. In other words, no man can live on one kind of food. You are not giving the rat half a chance on one food. Corn bread is mighty good, but you can not live on it alone. Man can not live by bread alone. You have to have a little meat—a Chicago beefsteak mixed with it.

The only test here ought to be whether this food is deleterious. If it is not deleterious, I do not care about its food value, whether it is as valuable as milk or not. If it is food and is good food, I say to you Congress is committing a crime; nothing less than a crime to endeavor to destroy its proper use, because the man who make two blades of grass grow where only one grew before is a blessing to humanity.

The Chairman: The time of the gentleman has expired.

Mr. Voigt: Mr. Chairman, I yield three minutes to the lady from Oklahoma [Miss Robertson]. [Applause.]

Miss Robertson: Mr. Chairman, a few moments ago I crossed over to the other side of the House to inquire of gentlemen from North Carolina whether very much of this stuff [holding up the can of filled milk] was used in their State. You remember perhaps that statistics of the late World War showed that of men called to the colors the North Carolina contingent were nearer physically perfect, taller, and more free from disease than those from any other State.

Down in Oklahoma quite a number of our citizens were originally from North Carolina and they maintain this splendid standard. I have never known a North Carolinian who did not insist on good milk and plenty of it.

Just now as I was talking with those two tall North Carolina men over there, who had never made the acquaintance of "filled milk," we exchanged reminiscences of corn bread and buttermilk till we all felt half starved together. Do you know what sort of corn bread and buttermilk we

meant? Corn bread made from hard white corn ground in an old-fashioned mill and buttermilk where the whole Jersey or Guernsey milk is put in a stone churn with a dasher, and allowed to reach just the right point, and then when the butter is taken out after churning little golden flecks of it are left in the buttermilk. Out of pity I stop here without more reminiscences so tantalizing to those of us born and bred in Dixie.

Now, to consider this question by the Bible standard of milk for babies and meat for strong men. The Good Book says "babes have need of milk and not of strong meat," for "strong meat belongeth to them that are of full age." The babies—are you going to feed them this stuff? Shall poor mothers, unable to read the labels, misguided by the looks of the container, and deceived by the retailer, starve the babies? I have used quantities of these milk substitutes in cooking. They make very good custards, the richness of eggs supplying to a sufficient extent the butter fat that is removed. In the same way they make very good gravies and very good sauces, where fats and thickenings are used in preparing food for grown people. But they are not fit for babies.

Shall we starve babies in America for commercialism? Piteous appeals come to us all the while for the starving children of other lands, to send preserved milk to children in the Near East, to children in Russia. I am positive no filled milk is sent from America to them. Did you ever think of comparing pictures of these starving children with pictures that might be shown of the helpless little children among the poor people of our great cities, who must depend upon the corner grocery and the tin can for food, whose mothers can not read the label on the can? Think of the babies whose mothers can not give them that wonderful sustenance—breast milk—and must give them instead some other food.

I think, too, of the Indian mothers of our country whose lives are so changed since to many of them a "farce" of civilization came, by which, instead of the old free, outdoor life, with its nature-provided food, they now have the same insidious dangers in the unbalanced foods of so-called civilization to meet, and their dark-eyed babies must be starved, too, the doomed race sooner passing away. Perhaps the greatest number of babies of any one class to be affected are the negro babies of the South.

There are so many would-be reformers in these days who are trying to push the legalizing of birth-control teaching. The sale of this milk should appeal to them, for surely it will dispose of many thousands of "unwanted babies"—not unwanted by their mothers, but unwanted in America, if we may believe the advocates of birth control.

I realize that in this bill there are very dangerous complications so far as possible infractions of the Constitution may be involved. I am not one who would do away with all substitutes. As I have said, filled milk will do for food for adults, but not for babies. For instance, from the vegetable oils of our great Southland, from cotton seed and from peanuts, there come some of the best foods in the fat elements necessary for balanced diet that are available. For many years we paid fancy prices for our peanut and cottonseed oils which journeyed oversea, as many good Americans go, to return with a foreign title, and receive an immediate recognition, where before their value had not been considered.

Even further north, in the corn belt, we have unexcelled vegetable oils that we find may be used more wholesomely than the same grains produced metamorphosed into animal fat by way of the hog.

So I do not wish to be understood as objecting to the sale of substitute products except where we shall starve our babies. I am speaking not as a wise interpreter of the Constitution or of commercial law, but as one who would call attention to the need, if it can not be done by national legislation, of State regulation that will care for the babies.

Mr. Voigt: How much time have I remaining?

The Chairman: The gentleman has 14 minutes remaining.

Mr. Voigt: I yield to the gentleman from Ohio [Mr. Cable].

Mr. Cable: Mr. Chairman, I ask unanimous consent to extend my remarks in the RECORD.

The Chairman: Is there objection? [After a pause.] The Chair hears none.

The extension of remarks referred to are here printed in full as follows:

[fol. 457] Mr. Cable: Mr. Speaker, the result of the new 3 per cent restrictive immigration law is startling. In the last

fiscal year without this law in force the net increase of immigration was more than one-half million. For the first nine months of the present fiscal year, operating under this 3 per cent law, the net increase is but 80,000. Strange to say, this increase consists entirely of women and girls. The male immigrant aliens admitted do not equal those who have departed; the female immigrant aliens admitted exceed in number those who departed by the 80,000.

The laws of the United States should be amended to permit these women to become citizens of the United States. In addition, there are more than two and one-fourth million female aliens 21 years and upward in the United States who are not naturalized. Under our law any woman who marries a citizen of the United States and who might herself be lawfully naturalized automatically becomes a citizen. This citizenship by marriage may be acquired without the woman being able to speak our language, without a study of our Constitution, and without even appearing in court and renouncing allegiance and fidelity to her foreign ruler, and without taking the oath of allegiance to the United States. Naturalization papers may be legally filed by an unmarried woman who is otherwise qualified, or by the widow of a foreign-born person not naturalized, but not by a woman during the existence of her marital relation.

I have introduced a bill granting to married alien women the independent right to be naturalized. A naturalization proceeding is an education in our language, laws, and form of government. The mother is best qualified to teach her children the true meaning of America and what is stands for. Married women, in my opinion, should have the independent right to be naturalized.

The last amendment to our Constitution provided that the right to citizens of the United States should not be denied or abridged by the United States or by any State on account of sex; but under the present law alien married women are denied the independent right to naturalization and the equal suffrage that goes with it unless they are naturalized through the naturalization of their husband.

Our law also provides that an American woman who marries a foreigner shall take the nationality of her husband, and that at the termination of the marital relation she may resume her American citizenship, if abroad, by registering as an American citizen within one year with a consul of the United States or by returning to reside in the United

States; or, if residing in the United States at the termination of the marital relation, by continuing to reside therein.

The bill I introduced also provides that a woman citizen of the United States who hereafter, being a resident of the United States, marries an alien who may be lawfully naturalized shall remain a citizen of the United States so long as she continues to reside therein, unless she makes formal renunciation of her citizenship before a court having jurisdiction over naturalization of aliens. If at the termination of the marital status she is a citizen of the United States, she shall retain her citizenship regardless of her residence. If during the continuance of the marital status she resides continually for two years in a foreign State of which her husband is a citizen or subject, or for five years continues outside the United States, she shall thereafter be subject to the presumption that she has ceased to be an American citizen.

The fact that a woman is married should be no reason to deny her the right of citizenship in the United States through naturalization proceedings if she is an eligible alien. Marriage of a citizen of the United States to a foreigner should not of itself terminate her citizenship. The laws of our country should grant independent citizenship to women.

Mr. Voigt: May I ask whether the opposition has used up all of its time?

The Chairman: The gentleman from Arkansas has 15 minutes remaining.

Mr. Voigt: I would like the gentleman from Arkansas to use some of his time.

Mr. Jacoway: I think the argument on this side is concluded.

Mr. Hardy of Texas: I would like to take two or three minutes.

Mr. Jacoway: I will yield the gentleman five minutes.

Mr. Hardy of Texas: Mr. Chairman and gentlemen of the committee, I do not know that much can be added to the argument, but it seems to me the lady from Oklahoma a moment ago supplied an argument against this bill instead of for it. She is for the babies. So am I. But I believe that all legislation that enhances the cost of better milk puts an obstruction in the way of the poor parent who wants to get pure milk for his baby. Now, if by this legislation you destroy any competitor of this article that might

enter into competition with the milk producer, the dairyman, and thereby reduce the price of real milk, you will help put out of the reach of the poor parent the opportunity to buy cheaper milk. Here is this product that comes in competition and has the tendency to cheapen the price of real milk. Every time you drive a competitor out of the market you enhance the price of genuine milk. And this commodity has printed on the label of it that it is not good for children or for babies. Consequently nobody is being fooled. So that the only effect of this bill is by destroying competition you enhance the price of baby's milk, and that, I take it, is the purpose of the bill.

I am as much opposed to any fraud as anybody on this floor can be.

If this was presented to the people as milk, if it did not carry on its face the warning that it is not good for babies, then I would be in favor of some bill requiring it to be so stamped. But I tell you that when the Congress lends itself to the putting out of the way of certain industries in any competition, we are stooping to a small business and to a purpose that in the end will return to plague us, for we do not know how soon it will be when your section or mine—and I am not interested in this matter—may have some product that is harmless but good for some things and not for others, and it may come in competition with something else that wants to drive it out of the market. And it is evident to me, from what I have heard, that the dairymen, wanting to raise the price of their commodity, want to get rid of a competitor that helps to reduce the price. Here is a competitor stamped on its face that it is not good for babies, can not be abused, can not be a fraud, sold on its merits for what it is worth, and the lady from Oklahoma says it is good for pies and custards; so why not let the public have it for that purpose? Why not let the man who uses it have it?

I have eaten coconut butter. I do not know whether or not it was good for sustenance, but I ate it when I could not get good butter, and really I preferred it to some butter. I do not think anybody should have the right to come in and say that if I wanted to eat I should not have the right to eat it. If it is harmful and poisonous, forbid it. But nobody has said this substance we are driving out is harmful, and the label carries what it is on its face. It seems to me that we are aiding one producer against another producer.

when by the laws of equity and our own ideals of fair play in this free country we ought not to do it. It looks to me as if we were going outside of the proper function of government, whether it is constitutional or not, and therefore I do not think this bill ought to pass. [Applause.]

The Chairman: The time of the gentleman has expired.

Mr. Voigt: Mr. Chairman, I yield to the gentleman from New York [Mr. Reed].

Mr. Reed of New York: Mr. Chairman, there are two points which I have considered of controlling importance in urging the enactment of the Voigt bill. One is the self-evident fact that every manufacturer of the compound of skimmed milk and vegetable oil as coming under the definition of filled milk written in this bill, seeks to market his product just as nearly in the form and semblance of milk as is possible. I am not satisfied to give a clean bill of health or a clean bill of business morals or ethics to any business which seeks to make a financial profit out of a traffic of this self-evident counterfeit character. I have several good-sized cities in my district and I know that this product is being sold generally in the stores in those cities, and it is my belief that it is being sold generally for what it is not and that the purchasers generally think they are getting milk or something as good as milk, and the evidence which has been presented to the House Committee on Agriculture and the House Ways and Means Committee convinces me that this product is not as good as milk and ought not to be permitted to be sold. The man, woman, or child who goes to a store to purchase milk should be protected against any attempt to foist on them a substitute that does not contain the nourishing elements of genuine milk.

The second fact is that the public does not understand that there is a surplus of farm products in this country and that the production of farm products can not be controlled by closing the factory door and sending the workmen home until there is a shortage to bring up the prices. The farms must be operated, and I take it that it is one function of the Congress of the United States to aid in every possible way to improve the marketing conditions and add to the market for the products of the farms. The chief agricultural product of my district, excepting a small section, is milk. Milk [fol. 458] for fluid milk consumption, milk for the manufacture of butter, and milk in a much smaller way for the man-

ufacture of cheese. I know that these farms must keep on producing. The importance of the continued prosperity of these dairy farmers is so great, not only to themselves and their families but to the business interests of my district and the country, that I know that I am justified in thinking of the larger importance of improving the market for milk in supporting this measure.

Mr. Jacoway: Mr. Chairman, I yield one minute to the gentleman from Virginia [Mr. Tucker].

Mr. Tucker: Mr. Chairman, I rise merely to put in the Record a suggested amendment.

The Chairman. The gentleman asks to have the Clerk read in his time an amendment for information. The Clerk will read.

The Clerk read as follows:

Amendment by Mr. Tucker: Page 2, line 11, strike out the words "or to ship or deliver for shipment in interstate or foreign commerce."

Mr. Voigt: Mr. Chairman, I yield three minutes to the gentleman from Wisconsin [Mr. Browne].

Mr. Kincheloe: Mr. Chairman, I make the point of order there is no quorum present.

The Chairman: The gentleman from Kentucky makes the point of order there is no quorum present. The Chair will count. [After counting.] One hundred and nine Members are present—a quorum.

The gentleman from Wisconsin [Mr. Browne] is recognized.

Mr. Browne of Wisconsin: Mr. Chairman, one-fifth of the Nation's food supply comes from dairy products, and it is, of course, important that these dairy products are pure and not adulterated. What do the filled-milk people do? In the first place, they extract the butter fat, the cream, the valuable vitamine product, out of the milk and leave the milk absolutely without nutrition to speak of. And this substitute for milk can not be detected by any person except a chemist upon examination.

Now we know that throughout the United States to-day, in every State that has not outlawed it, they are selling filled milk, and the majority of people who are buying it think it is pure milk with the valuable life-giving, growth-producing vitamine product contained in it. Even the Government of the United States was deceived and defrauded

in the State of Ohio during the war, when it bought two carloads of condensed milk for boys at Camp Willis and they thought it was pure, unadulterated milk, when it turned out to be filled milk. So our boys were being fed a product to build them up and make fighting men of them that did not contain enough nutrition even to support the life of a rat, as was shown by Professor McCollum's demonstration.

The filled-milk industry is growing very fast. In 1917 we produced only about 35,000,000 cases of filled milk, and in 1921 we produced 86,000,000 cases of this filled milk, and if we continue at that rate it is going to drive legitimate manufacturers of full condensed milk out of the market, as several of the large manufacturers have said, among them the Borden people. It is also going to substitute the coconut cow for the Jersey or the Guernsey or the Holstein cow. You can manufacture this filled milk, as the evidence shows, for 2 cents a pound can. Think of it for a minute! And you can place it on the market and make it an object to the retail dealers to sell it a good deal cheaper than they can sell the other milk, and, of course, they will make a larger profit. Therefore many retailers are substituting filled milk for whole milk. In the State of Wisconsin, where they made an investigation in preparing their case for the Supreme Court, they found in 15 cities 65 cases of fraudulent sales of this milk.

Mr. Walsh: Mr. Chairman, will the gentleman yield?

Mr. Browne of Wisconsin: Yes.

Mr. Walsh: Where do the manufacturers get this skimmed milk?

Mr. Browne of Wisconsin: From the farmer.

Mr. Walsh: The very man that is in favor of this legislation.

Mr. Browne of Wisconsin: They buy the full milk of the farmer and extract the cream and sell the cream and keep the by-product, the skimmed milk, and add the coconut oil in place of the cream. A law prohibiting the sale or manufacture of filled milk was sustained by the supreme court in the State of Ohio. The case went to the Supreme Court of the United States, and the highest court in the land sustained the State law. [Applause.]

Mr. Chairman: I am in favor of this bill to prohibit the manufacture of filled milk in the District of Columbia or its shipment in interstate or foreign commerce.

I favor this bill because it will protect the public from a counterfeit that when used in place of milk will undermine health, especially the health of children.

The public is unfamiliar with the term "filled milk." It is an imitation of condensed or evaporated milk. It is made by robbing milk as it is taken from the cow of its butter fat or nutritive value. In other words, the cream is skimmed off and coconut oil or peanut oil, or buttermilk and soda is substituted. The milk is then made into condensed or evaporated milk and sold in competition with condensed or evaporated milk made from the whole milk with its butter fat and its valuable and life-giving vitamine ingredients. This compound, which is known as filled milk, is a perfect physical imitation of pure evaporated milk, and it is impossible for anyone except a chemist to tell the difference between pure evaporated milk and the filled milk containing 6 or 8 per cent coconut fat in place of cream or butter fat, which has been extracted from the milk and sold.

Second. I favor this bill because it places the dairy farmer in unfair competition with the manufacturers of a product which no one except a chemist can tell from the original, and which can be manufactured at one-fifth of what it takes to produce the genuine article.

Many States Have Outlawed Filled Milk

Already 11 States, representing a total population of 31,330,197, have passed stringent laws prohibiting the sale and manufacture of filled milk within their territory. These laws passed by the States have been bitterly contested, both in the legislatures and the supreme court of the States. So far as this legislation involving the constitutionality of the laws prohibiting the manufacture and sale of filled milk has been tested in the courts, the law has been sustained.

In a recent case in Wisconsin, which is now under advisement by the supreme court of that State, the referee's report dealt chiefly with the product Hebe, manufactured for the Hebe Co. by the Carnation Milk Products Co. This brand of filled milk is one of the six or seven leading brands of skimmed-milk compounds. The referee who reported on the Wisconsin case found from the evidence that this brand of filled milk was not a desirable or proper food for infants nor was a complete substitute for milk.

Ohio passed a filled-milk law which was upheld by the Supreme Court of the United States in the case of Hebe Co. et al. against Shaw, Secretary of Agriculture of Ohio, et al., reported in volume 248, United States Reports, page 297, sustaining the Ohio law, which forbids the sale, and so forth, of filled milk.

Doctor McCollum, of Johns Hopkins University, a very high authority on the subject of nutrition, testified before the Agricultural Committee that the vitamines that are absolutely necessary to promote growth in the human body are found most abundantly in butter fat, and that milk is the chief article of food relied upon for vitamine; that there is no effective substitute for milk; that filled milk is almost entirely lacking in vitamine. Doctor McCollum was corroborated by Dr. E. B. Hart, of the University of Wisconsin, another authority on the subject. Professor Hart says in his testimony that at least 90 per cent of the fat soluble vitamine of the whole milk is removed in the modern commercial skimming process.

Filled milk is sold under the various trade names, such as Hebe, Carolene, Enzo, Silver Key, Nutro, Nyko. These imitations are put up in the same size cans as regular condensed milk and are advertised by retail dealers as evaporated milk. In five cities there were 340 separate advertisements by 53 retail groceries of these brands of filled milk.

In the case now pending in Wisconsin it was shown that there were 65 instances of fraudulent sales made in 16 different cities in Wisconsin.

No Remedy Except by Prohibiting Sale

It has been thoroughly demonstrated that imitation milks, with their history of misrepresentation and their unquestioned inferiority in nutritive value, can not be made safe for the public by proper labeling but must be prohibited altogether. Filled milk has been shown to be of an inherently fraudulent nature.

It has been put out as a substitute for the product for which it is a perfect physical imitation. It has been shown to be sold at retail and advertised by retailers in a fraudulent manner. It is not only an imitation and a substitute of a most important food that has been supplied by nature for the use of mankind, but it is pronounced by chemists

and authorities on nutrition as an inferior imitation and lacking in nutritive value, which brings its manufacture and sale into vital relationship with public health.

[fol. 459] Extent and Sale of Filled Milk

The Bureau of Markets shows that the sale of filled milk in 1917 increased from 35,031,902 cases to 86,561,000 cases. In 1920, 8,000,000 pounds of coconut fat were used in the manufacture of filled milk, taking the place of as many pounds of butter fat or cream. Some of the largest manufacturers of evaporated milk in the country state that unless Congress and the several States do something to stop the competition that they will have to go into the business of manufacturing filled milk or go out of business.

Will Eventually Ruin the Dairy Industry

Besides the amount of filled milk that is sold in this country, we are exporting large quantities. In 1919 we exported 850,865,414 pounds of full or unadulterated condensed milk, while in 1920 we only exported 414,250,021 pounds, or less than one-half of he amount. In the last few years the amount put out of filled milk has grown over 5,000 per cent, and the manufacturers of filled milk admit that the business is only in its infancy. The obtaining of milk from the coconut cow is a cheap process compared with producing milk from the Jersey, Guernsey, or Holstein.

The cost of a quantity of skimmed milk and coconut fat sufficient to fill 48 cans of filled milk is a little over 80 cents, or less than 2 cents per pound can. The retail price of 1-pound cans, which cost the producer 2 cents, sells for from 10 cents to 12 cents per pound. Thus the manufacturers of filled milk can sell their product below the cost of production of the unadulterated milk and make an exorbitant profit.

Importance of Dairying to the People

Dairying is engaged in by over one-half of the farming population of the United States. The milk produced in 1919 in the United States had a cash value to the producer of more than $2,000,000,000.

The dairy industry is connected more closely with the lives and health of every community and the national welfare than any other. The milk supply of every community is of vital importance to the health, happiness, and welfare

of that community. Dairy products furnish the people with one-fifth of their food, and its bearing upon human health, particularly of children, has not been adequately appreciated, as indicated by the experience of the late war.

Herbert Hoover, who as head of the Relief Committee of Europe had great opportunity to observe the beneficial effects of milk as food, says:

In its broad aspect, the proper feeding of children revolves around the public recognition of the interdependence of the human animal upon its cattle. The white race can not survive without dairy products.

Food Value of Milk

The State Board of Education and the Superintendent of Public Instruction of California made one of the most thorough investigations of the nutritive value of milk. This test was made in the schools of Los Angeles and the report was summarized as follows:

Milk

Increases body weight.
Increases rate of growth.
Increases physical skill.
Increases mental alertness.
Increases rate of school progress.
Increases resistance to disease.
Increases social adaptability.

Outstanding among the facts in this survey are the following;

Four and thirty-eight one-hundredths per cent of the children receiving no milk, were found to be over the average graduation age, while only 1.38 per cent of the milk-using children who received 1 pint daily were over this age.

Eight and eight hundred and two one-thousandths per cent of the children receiving 1 pint or more of milk a day were ahead of their normal grade.

Seven and eight hundred and seventy-nine one-thousandths per cent of the children receiving one glass of milk a day were ahead of their normal grade.

Milk-using children can be forced in their school work with less ill effect upon their height and weight than non-milk-using children.

There are two milk-drinking children ahead of their normal grade for each nonmilk-drinking child. (Report of the California School Milk Survey.)

Legislation Constitutional

This bill if it becomes a law would be clearly constitutional. Its constitutionality could be sustained, first, on the theory of prevention of fraud and deception; second, on the theory of the preservation of public health; third, the law can be sustained on the theory of the protection of the great dairy industry from irreparable injury. This would be for the benefit of the public or public welfare.

The Supreme Court can sustain this law much easier than in the case of the trading-stamp laws. The Supreme Court upheld the Florida law prohibiting the shipment out of the State of immature citrus fruit on the theory that it was within the police power of the State to prevent the shipment from the State of fruit, which would bring discredit upon the fruit-growing industry of a State.

It certainly is equally within the power of a State or the United States to prevent the milk it produces from being robbed of its butter fat and vitamine properties and manufactured into an inferior imitation of real milk and sent out to prejudice and unfavorably advertise the great dairy industry.

In the case of Hebe Co. et al. v. Shaw, Secretary of Agriculture of Ohio, et al. (Report, vol. 248, U. S. Repts. p. 297), the Ohio law was sustained, which forbids under criminal penalty the manufacture, sale, and so forth, of condensed milk unless made from unadulterated milk from which the cream has not been removed and in which the milk solids are equivalent to 12 per cent crude milk and 25 per cent fat.

The court held in this case:

We are satisfied that the statute as construed by us is not invalidated by the fourteenth amendment. The purpose is to recommend a certain minimum or nutritive element and prevent it and may be carried out in this way even though condensed, skimmed milk and Hebe should be admitted to be wholesome.

[Applause.]

The Chairman: The time of the gentleman from Wisconsin has expired.

Mr. Browne of Wisconsin: Mr. Chairman, I ask unanimous consent to revise and extend my remarks.

The Chairman: Is there objection to the request of the gentleman from Wisconsin?

There was no objection.

Mr. Jacoway: Mr. Chairman, how much time have I remaining?

The Chairman: The gentleman has 10 minutes.

Mr. Jacoway: I yield five minutes to the gentleman from Arkansas [Mr. Wingo].

The Chairman: The gentleman from Arkansas is recognized for five minutes.

Mr. Wingo: Mr. Chairman, this effort to destroy the market of the American farmer for one of his products naturally evokes a protest from any man who is a real friend of the farmer.

I was surprised at the remarks of the lady from Oklahoma [Miss Robertson]. She made two arguments that were contradictory. She is an expert on custards. She knows something about custards, and she asserted that she had used this product you propose to outlaw in the making of custards, and stated that it made good custards.

Miss Robertson: Yes; but when I made that statement I did not say that I would recommend that those custards be fed to babies.

Mr. Wingo: Yes; I have raised babies, but not on custard. I am very fond of custards. If I want to use this product to make custards, why should the lady object? Why should she vote to prohibit the shipment of this product to me, so that I could put it in custards? I have raised babies, and I know something about babies. If a man who will go home and assume that his wife does not know anything about raising babies when she has told him to go and buy some milk for the baby and he brings home condensed milk for the baby, just see what happens. [Laughter.]

Let your wife tell you to bring home some milk for the baby and you take home Carnation or any other brand of condensed milk, if she has any intelligence as regards the quality of food and knows about the proper raising of babies she will give you such advice that you will not make the same mistake another time. [Laughter.]

Gentlemen, you are piling law on law. The rule is clear that Congress has the right to protect people in certain

ways through interstate commerce regulation. If there is anything that is misbranded or concerning which there is a fraudulent misrepresentation you have the right, and you have the power to exercise that right, to bar it from interstate commerce. If this can here is fraudulently branded, or a merchant on Fourteenth Street makes the representation that a Member quoted, he can be indicted under the laws of the District of Columbia and under the laws of every State in the Union. You have law now to punish the very fraud they complain of in every State in the Union, including the District of Columbia.

Now, I know that the theory of the modern socialist and Bolshevist is that the proper function of government is to stand at the elbow of men and women, stating what is good for them to wear and what is good for them to eat, and making the choice of their food. That is the modern theory. But, gentlemen, you do not raise strong men like those from North Carolina, to whom the lady from Oklahoma [Miss Robertson] referred, by having the Government stand by and, through its agents, dictate to them what they shall eat. On that basis you would have a right to say whether a mother should dress a baby in red [fol. 460] flannel or in cotton. As for me, I do not propose to let anybody else tell me what kind of clothing I shall put on my child or what kind of food I shall furnish to him.

Gentlemen, I repeat, that if you misbrand this can, you have already a law upon it. If the groceryman says it is milk and represents it as having the same quality as milk, he could be indicted in my own State and in every State in the Union. You know the modern theory about States and communities——

Mr. Lowrey: Mr. Chairman, will the gentleman yield?

Mr. Wingo: I will ask the gentleman not to interrupt me now.

That modern theory is that the States and the local communities and even the parents themselves can not be trusted; that you must have a Federal law and Federal officers to guide and to protect them. If you can pass this kind of a statute there are 100 other propositions that people object to, and they can come in and ask Congress to bar those articles from interstate commerce. There is another substitute that the lady from Oklahoma [Miss Robertson] is friendly to. I do not remember the name of it now. I

prefer it to whipped cream. I think it is better. A good many ladies prefer it. Yet it is not whipped cream. She would bar that from interstate commerce. Why, if you follow this to its logical conclusion you set up the judgment of the lawmakers as to what food is good for men and what food is bad. It is not a question of poisonous substances. It is not a question of things that are admittedly dangerous to public health in a general way. It is admitted that this is a good substitute for some things. [Applause.]

The Chairman: The time of the gentleman from Arkansas has expired.

Mr. Voigt: I yield three minutes to the gentleman from New York [Mr. Fish].

Mr. Fish: Mr. Chairman, representing one of the largest milk-producing districts in the United States, a district that supplies a large part of the milk consumed in New York City, I want to urge the immediate enactment of this legislation to prohibit interstate commerce in filled milk. The dairymen in our section of the country are eking out a very precarious living. The gentleman from Texas seems worried about the price of milk. If you permit imitations to be passed off for condensed milk, you are wiping out one of the main by-products of the milk producers, and of course, if you do that the price of milk is bound to go up or the dairy industry will be wiped out. In our section dairymen average possibly $500 or $600 a year net profit, with the whole family working from 12 to 14 hours a day. They have big investments in stock and buildings, and besides working long hours incur a big risk from disease and the chance of losing their entire herds. During the war the milk industry in competition with the shipbuilding and other war industries which paid high wages was almost wiped out. The herds were reduced because of the impossibility to secure farm hands or to pay the prevailing rate of wages, yet the price of milk remained approximately the same.

The question is simply this: Is the production of milk an essential industry or is it not? Should we protect essential industries? That is what the dairymen are asking for here. This filled milk is not a fraud. It is simply a perfect imitation of condensed milk. In fact, it is exactly the same as condensed milk except that it is without nutrition and

has no value as far as feeding babies in concerned. This essential industry comes here asking protection, not from frauds, but from such imitations and substitutes. Why, this Hebe compound might just as well be chalk and water as far as benefiting the children of this country. We all know that there are thousands and tens of thousands of mothers who can not tell the difference, who can not even read, and who buy this filled milk because they think it is the same as condensed milk. It is exactly the same in appearance, and vast numbers of women of this country use it for condensed milk. We ask this protection of an essential industry, for the protection of hundreds of thousands of children of this country and the consuming public.

[Applause.]

(Bill passed House May 25, 1922.)

The Chairman: The gentleman from Wisconsin [Mr. Voigt] has seven minutes remaining and the gentleman from Arkansas [Mr. Jacoway] four minutes remaining.

Mr. Echols: Mr. Chairman, I ask unanimous consent to extend my remarks in the Record.

The Chairman: The gentleman from West Virginia asks unanimous consent to extend his remarks in the Record. Is there objection?

There was no objection.

The extension of remarks referred to are here printed in full as follows:

Mr. Echols: Mr. Speaker, I am opposed to the pending bill for three reasons:

First. It will increase the price of wholesome milk to the consumer and add to the taxation of the country.

Second. It is a violation of the Constitution.

Third. It is the most vicious sort of class legislation.

I shall not undertake to discuss the first, for the simple reason it is self-evident if we destroy competition in any commodity and increase the number of Government employees, the cost of the commodity and taxation will go up.

As to the second, I shall only say if Congress has the power to prohibit the transportation in interstate commerce of a food product, although that food product is inferior in quality to some other product of a similar nature, it likewise has power to prohibit the transportation of an inferior grade of coal or lumber for the same reason. However, there is nothing to show that "filled milk" is injurious

to the health of the individual. It may be that it is inferior in quality to pure fresh milk, but that is not a reason for prohibiting its manufacture and sale in the District and our posessions or to prohibit its transportation in interstate commerce.

The advocates of this bill are far from harmonious in their statements relating to this product. One advocate [Mr. Knutson] in his argument says:

The bill seeks to put a stop to a flagrant fraud.

Another [Mr. Fish] says:

This "filled milk" is not a fraud.

There is, of course, no fraud. Every can of this product has plainly stamped thereon the contents of the can. To defraud is to deceive. No one can be deceived when he is plainly told what he is buying. But they say it is not good for babies. That may be so; neither are cucumbers, raw turnips, and a hundred other food articles; but that is not a reason for prohibiting their transportation from one State to another. All such legislation as this bill proposes is asked for on the ground of public welfare. It has no merit, so the baby is made the excuse to bring it support.

The whole purpose of this bill is to put the manufacturers of "filled milk" out of business because their product comes in competition with the dairymen of the country. "Filled" or condensed milk is the only semblance of milk that can be obtained by hundreds of poor people in the industrial sections of the country. If they are deprived of the right to purchase "filled milk," then they are deprived of the right to purchase any sort or semblance of milk whatever. If this bill becomes a law, the price of milk will go higher than it now is, and the poorer classes of people who can buy it now will not be able to reach it at all then. It is the most vicious piece of legislation that has been considered by the House of Representatives in the three years that I have been a Member.

If "filled milk" is injurious to the health of the people who use it, then there is a law in every State in the Union to punish those who sell it. The people in the Tropics use as one of their principal articles of food the products of the coconut. We here use coconut butter, and many people are very fond of it. No one, so far as I am advised, has ever been told that it is injurious to the health of the user.

The State legislatures and the Federal Government are passing annually some 15,000 statutes, and the courts of the country are rendering annually more than 15,000 opinions in an effort to interpret and apply these statutes. It is next to impossible for the individual possessed of even more than ordinary intelligence to understand and comply with the already too numerous laws. This piece of legislation will but add to the difficulties; and in the end result in nothing but additional litigation and cost burdens. There are now several hundred—some one has said more than 700—boards, bureaus, committees, commissions, departments, and so forth, here at the seat of the Government. Each one adds to the burden of taxation. Many of them are wholly useless, and some of them are even dangerously harmful. Some appointed to perform a specific duty which could have been performed in a short time have been in existence more than a hundred years and still are asking for appropriations and doing nothing.

This bill will add another to the list. Most of these boards, bureaus, commissions, and so forth, are the result of class agitation and class legislation. It has become very common for a few individuals, when not satisfied with things as they are, to insist upon the appointment of an investigating board, to be followed by a special measure peculiarly applicable to their particular grievances creating some new governmental agency to administer that law. Instead of forecasting the ultimate result of such legislation and making laws applicable to all the people, we have grown into the habit of passing laws applicable to classes; and the result is so confusing and works such manifest injustices we try to escape from one confusion by enacting [fol. 461] another statute that will have no good result but will add to the hopeless confusion we are now experiencing. The people of the country are weary of so much legislation that they do not understand and could not comply with if they did understand it. All of these difficulties give the paternalist and the demagogue a chance to propose some new "ism" or "scheme" promising relief. Words without number have been spoken in the last few years on nationalization of the industries of the country under the guise of public welfare, most of which were without thought and dangerous. Only recently the head of a great organization advocated the nationalization of the coal mines, but without any explanation of what such nationalization would

mean. Nothing to show that coal would be produced and sold to the consumer cheaper than it is under the present system; nothing to show that the laborer who mines the coal would receive a greater compensation for his services than he now receives. We had a temporary nationalization of the railroads, from which we have not recovered and will not for the next quarter of a century.

Every time Congress passes an act providing for class legislation or class preferment, the darkness of the clouds that hover over this Republic become a little more dense. If the history of the world has settled any one fact, it has settled the fact that any government that tries to run everything will soon find itself upon the rocks. Any government that permits itself to be led into the realms of passion and hatred where it does not require its citizens to recognize the rights of others, where it legislates wholly in the interest of one class to the detriment of another, as this bill does, will soon find itself in the position of being unable to protect the life of its citizens. Any class of men that does not recognize the rights of others to carry on a legitimate business, although it may come in competition with their business, is a dangerous class to trust the control of the Government to.

There is nothing new in the fallacies and the "isms" proposed by the paternalist or the demagogue of to-day. All of them were tried centuries ago. They prate about democracy, talk about social justice and self-determination, and yet no one has ever been able to tell us what social justice is or where self-determination is practicable. Russia, with her starving millions, is the latest example of "self-determination" and class preferment. The present regime has brought more suffering to the people of that great land of opportunity and wealth than all the Czars who have reigned throughout the ages. The terror, crime, and hatred in Russia to-day surpass that of any other country in all history. Russia is a government without law, and a government without law is despotism; yet we were told by the Bolshevist and the Socialist that when the present regime in Russia started it was the fulfillment of the dream of the ages. Our country is drifting into a realm of paternalism where the Government proposes to stand guardian for the individual. No effort upon the part of the individual to protect his own rights and maintain

himself is required. The pending bill is another step in the direction of socialism. It undertakes to say that the Government will take charge of individual judgment, tell the people what they must eat, whether the food they eat is wholesome or not, or whether it is to their liking. I am just as unwilling to force the individual to use "filled milk" as I am to deprive him of the privilege of using it. It is going a long way for the Government by a mere fiat of legislation to say to the public that a certain article of food shall not be used by them, although there is nothing injurious to the health of those who purchase and use it. This bill is class legislation run mad. If this sort of legislation is to be continued, then no concern can safely engage in manufacture of any new product whatever. If it should do so and that product should come in competition with the product of some other class more numerous than the one to which it belongs, it could expect the Congress to come along any minute and by mere legislative declaration, as was stated by the gentleman from Iowa [Mr. Towner] in proposing his amendment, which declares "filled milk" is deleterious, prohibit the sale of its product in the District of Columbia and our possessions and prohibit the transportation thereof in interstate commerce.

Mr. Voigt: I yield two minutes to the gentleman from Michigan [Mr. Ketcham].

Mr. Ketcham: Mr. Chairman and members of the committee, during the three hours of general debate all angles of this question of the sale of a fraudulent substitute for milk have been presented very ably and earnestly, and we are greatly indebted to Members who have been to such great pains to arrange and present the many logical reasons for the passage of this bill.

Before entering on debate under the five-minute rule it may be helpful, however, to correct a few false impressions that have been left by some of the proponents of the measure.

The distinguished member of the committee from Louisiana [Mr. Aswell] in the course of his argument led you to believe that the manufacture of this bogus milk product would make a great market for separated or skim milk. Do the manufacturers of this product buy separated or skim milk from the producers and then by the addition of the vegetable oil make up this fraudulent article? Nay

verily! The overwhelming percentage of their purchases from the farmers is whole milk. The butter fat is extracted and vegetable fat substituted, thus making a profit both ways. One company in 1919 purchased 97.2 per cent whole milk and 2.08 per cent skim milk from which to make its bogus product. In 1920 this same company purchased 94.3 per cent whole milk and 5.7 per cent skim milk for the same purpose.

It must not be forgotten that the foundation of this fraudulent article is milk, and that every pound of it that is placed on the market displaces just that much wholesome product. Suppose that all whole milk were made over into this bogus article. Would the sum total of milk be increased? To urge such an argument is but to show to what extremes the opponents of this helpful legislation are forced to go in their attempts to defeat it. No, Mr. Chairman, the opponents of this bill can not justify themselves in urging that by turning whole milk into filled milk they are increasing the food supply. The dairy cow regulates that matter, and while the eloquence of the gentleman in opposition to this law may be very persuasive here, it does not inspire the dairy cow of the country to give one additional quart of milk.

The real purpose in this bogus milk game is to make money, not to prevent food waste. How is it done? The butter fat that sells for 35 cents per pound is extracted and vegetable fat costing 12 cents per pound is substituted. This bogus product is then put up in identical shaped cans and is sold upon the reputation of real milk.

The distinguished gentleman from Louisiana. [Mr. Aswell] further pleads for this bogus milk on the score of its cheapness and consequent advantage to the poor. Important if true. Let us see: First, let us look for a moment at the testimony of Mr. McKee, a representative of the Hebe Co., on page 8 of series H, part 1 of the hearings. He says that the price per can is 2¾ cents less for filled milk than for condensed milk. The cost to the retailer is evidently much lower per case. How about the customer? I present for the information of the committee in this connection a group of photographs of both condensed and filled milk actual sales with the price mark clearly indicated in each case. Three cans of each appear in the first picture. The three cans of filled milk total 19 cents, the three of

evaporated 20 cents. One-third of a cent per can less for a bogus product whose representative testifies that its cost is 2¾ cents less. Here's another—nine cans condensed milk, 95 cents, and nine cans filled milk, 90 cents. One half a cent less per can for bogus product which cost the retailer 2¾ cents less per can. These cans were actual purchases in retail stores outside of chain stores.

Having disposed of the arguments of the opponents of this bill on the subject of food waste and cheapness, it may be well to turn for a moment to the food-value argument. It has been repeatedly stated, here this afternoon that filled milk is injurious or deleterious to human health. Everyone concedes, of course, that it is not positively bad, but no one disputes the fact that it is negatively good. It is a sham, a pretense, and literally a wolf in sheep's clothing among food products. Were it actually poisonous even the most ignorant would not be misled. But masquerading under a good name it deceives even the elect and thus becomes doubly dangerous. President Harding has recently uttered some stirring words about "conscience in business." The sentiments he expressed in that splendid appeal are especially in point in the discussion of this bill. When in the name of "business" we attempt to foist upon the innocent, the poor, and the unwary a spurious article of food, it is certainly high time to call for "conscience in business," and for this reason, if no other, every vote should be cast for this bill.

I can not speak in scientific phraseology on the value of this bogus milk, but I can bring to the committee a farm illustration that will be convincing to anyone who knows farm life. If one of a pair of twin calves is allowed to take his nourishment from its mother according to nature's method and the other is taken away and fed upon separated or skim milk, even with substitutes added, is there any comparison at the end of any period of experimentation? The calf fed by nature's method will be bright-eyed, sleek-coated, symmetrical in form, and a beautiful thing for every lover of animals to look upon. The calf fed on separated or skim milk will be undersized, "poddy," and in every way inferior to its twin. The butcher, I apprehend, would have no trouble in choosing the better [fol. 462] one for the block, even though coconut oil, or even peanut oil, had been added to the ration of the hand-

fed calf. Shall we get lost or confused in the bogs of scientific argument on the subject of nourishment in this filled-milk product when any 10-year-old farm boy sees and knows the truth in it?

The deception and fraud in the sale of this bogus product can not be too strongly emphasized, in my opinion. In order to set this out clearly, I quote, through the courtesy of Mr. A. A. Miller, editor of the Milk Producers' Review, of Philadelphia, some statements of dealers in Pennsylvania and New Jersey:

1. Sell Pet but no Hebe milk. Pet same as Hebe. (Pet, condensed; Hebe, filled.)
2. Silver Key all right; same as Borden's. (Silver Key, filled; Borden's, condensed.)
3. Hebe good as Borden's.
4. Hebe just as good as others; all alike; good for children.
5. Hebe, good milk; good for babies; yes, good for everything.
6. Recommended Hebe for babies.

Many others of similar import could be given, but these are fairly indicative of the trade practices, particularly in poorer sections of our large centers of population. We certainly should be willing and ready to prevent this deception and fraud as far as our power goes, both on account of health and moral considerations.

Something has been said, Mr. Chairman, concerning the selfish interest of dairymen in this measure. Because of the fact that whole milk is purchased by the manufacturers of filled milk, I feel that this argument is unfair. The fear of the dairyman is that the sale of this bogus milk product will discredit his whole business and thus do him immeasurable harm. He is clearly entitled to have the generally accepted high character of the whole milk product which he markets preserved. His interest in the matter is one with public interest.

Mr. Chairman, as I see this proposition it summarizes about as follows: Responding to the urge of war-time necessity, we went far afield in search of "substitutes." The use of "substitutes" tolerated under the stress of war has become strongly intrenched in our commercial life. The profit in them lures many to exert every energy to

continue their use. Is it not time to right-about face? Are such practices even "good business"? Shall not the admonition of the President urging "conscience in business" be heeded?

Filled milk adds nothing to our food supply, is not perceptibly cheaper, and clearly seeks to steal the good name of whole milk, thereby endangering the whole dairy industry. Sound public policy is against it, and it is, therefore, my hope that the committee will approve this bill which prohibits it as an article of interstate commerce.

By unanimous consent leave to extend remarks was granted to Miss Robertson, Mr. Jones of Texas, and Mr. Clague.

Mr. Jacoway: Mr. Chairman, I yield the balance of my time to the gentleman from Mississippi [Mr. Lowrey].

Mr. Lowrey: Mr. Chairman, we are through raising babies at my house. We have raised eight, and we did not use condensed milk. I am still for the protection of the babies. It seems to me that when the gentleman who preceded me undertook to defend his position he sufficiently sustained our position. The gentleman says he went to 25 merchants in this town who a year ago were selling this product as condensed milk and that they are not selling it now, because it is properly labeled. If it is properly labeled and that has produced the effect, why not simply enact a law requiring a proper label and not attack the industry? That is all the argument I have to present. But as the gentleman has given me the balance of the time I feel constrained to make a little protest against the conduct of my friend and colleague from Mississippi [Mr. Sisson]. I do not think it exactly polite and worthy of a Mississippi Congressman to stand and look down at people's ankles and then comment on their hosiery, as the gentleman did when he had the floor. [Laughter.]

Mr. Voigt: Mr. Chairman, I yield two minutes to the gentleman from South Dakota [Mr. Williamson].

Mr. Williamson: Mr. Chairman and gentlemen, I have been very much surprised this afternoon in noting that there has not been a single Member on the minority side who has risen in defense of this bill. Neither have gentlemen on that side of the House shown us that this bogus milk has a single element of real food value in it. The truth of the matter is and the evidence all shows that this

product which is being sold as filled milk has the vitamines taken out of it, and that is the only essential element in milk that would be of any value so far as sustaining human life as concerned. There is not a man here, raised on a farm, who remembers the time when the cream separator came into vogue who does not also recall that when he attempted to feed the calves on the milk after the separator had taken the cream out of it that the calves got thinner and thinner and that some died. Calves can not be raised on that kind of a diet. And yet this same milk is taken, mixed with coconut oil, and fed to children. [Applause.]

To permit a compound consisting of separator skimmed milk and coconut oil to be sold as a substitute for the genuine article is to permit the people's money to be taken under false pretenses. But it is argued that it is not sold as a milk substitute. How anyone can read the labels upon the cans and the newspaper advertisements describing the virtues of the mixture and arrive at that conclusion is hard to understand. Such labels and every line of the glowing advertisements are calculated to deceive the buyers into the belief that they are really getting a superior product.

The contention that the manufacturers of "Nutro" and "Hebe" and other like concoctions are entitled to consideration, and that we have no right to destroy their investments by destroying their markets, is not impressive in view of the methods employed by them in foisting their all but worthless products upon the unsuspecting public.

Upon the one hand it is being argued by the opponents of the measure that to prohibit the shipment of filled milk in interstate commerce is to deprive the poor of a valuable food product and on the other that it will deprive the farmer of a market for his skimmed milk. Both contentions seem to me untenable. It has been demonstrated by the most convincing proofs and by actual experiments that filled milk is wholly unfit as a diet for infants or children and that it is the mother of rickets and brings on loss of vitality and impairment of vision. If injurious to children, it can have little value for adults. That it is depriving the farmer of a market for his milk is equally ill founded. Skimmed milk is a mere by-product. The more of it that can be used as a substitute for the genuine article, the less

demand there will be for the whole milk. Statistics gathered by the Bureau of Markets show pretty conclusively that the compound is gradually reducing the demand for malted and evaporated milk, both of which are manufactured from the whole milk. This has resulted in a corresponding reduction of demand for the products of our dairy herds. Figures presented by the bureau, as given in the committee's report, show that the production of filled milk increased from 35,031,902 pounds in 1917 to 86,561,000 in 1920, while the production of sweetened condensed and unsweetened evaporated milk decreased from 2,030,957,618 pounds in 1919 to 1,461,140,312 in 1921. I regret that I do not have the figures at hand for the corresponding years throughout, as this would be a much more satisfactory comparison. It seems to me that the reasons for the enactment of this bill into law are most convincing and that we should have no hesitancy in supporting it.

Mr. Voigt: Mr. Chairman, I yield the balance of my time to the gentleman from Kansas [Mr. Tincher].

Mr. Tincher: Mr. Chairman and gentlemen of the committee, at the time the hearings were had on the bill this product was being sold in the city and used as food for infants. The attention of the manufacturer having been called to the fact that it was not fit for infants' food, the label was changed. The evidence discloses that there was no nutrition in the substance, and the only reason that they should not be compelled to label it "Not fit for adults" is that it was not shown that it was particularly injurious to adults. But there is no food about it, and no reason why it should be carried in commerce or manufactured. I do not know why anyone should vote to permit the sale of an article used as food that has no nutritious element in it. [Applause.]

The Chairman. The time of the gentleman has expired, all time has expired, and the Clerk will read the bill for amendment.

The Clerk read as follows:

Be it enacted, etc. That whenever used in this act—

(a) The term "person" includes an individual, partnership, corporation, or association;

(b) The term "interstate or foreign commerce" means commerce (1) between any State, Territory, or posses-

sion, or the District of Columbia, and any place outside thereof; (2) between points within the same State, Territory, or possession, or within the District of Columbia, but through any place outside thereof; or (3) within any Territory or possession, or within the District of Columbia; and

(c) The term "filled milk" means any milk, cream, or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried, or desiccated, to which has been added, or which has been blended or compounded with, any fat or oil other than milk fat, so that the resulting product is in imitation or semblance of milk, cream, or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried or desiccated.

Mr. Towner: Mr. Chairman, I offer the following amendment.

The Clerk read as follows:

Page 2, line 8, after the word "desiccated," strike out the period, insert a comma, and insert "and as such is an adulterated and deleterious article of food, and when marketed as such constitutes a fraud upon the public."

[fol. 463] Mr. Towner: Mr. Chairman, I am justified in saying that the author of the bill and at least a part of the Agricultural Committee have agreed to this amendment.

Mr. Chairman, this amendment is offered merely on a legislative declaration of the object and purpose of the legislation. There are three grounds upon which articles of this character may be prohibited from interstate commerce. If the article is adulterated, if the article is deleterious as a food product, or if it is being marketed and the process of marketing constitutes a fraud upon the public, then interstate commerce may take cognizance of the conditions and the article may be prohibited from being shipped in interstate commerce.

Mr. Jones of Texas: Mr. Chairman, will the gentleman yield?

Mr. Towner: Yes.

Mr. Jones of Texas: The gentleman's amendment is in line with the suggestion that I made a while ago, and would go far to remove the objections to the bill.

Mr. Towner: This is a legislative declaration of the fact that is claimed by the proponents of the bill. It is also a declaration of the purposes of the legislation. Of course I know that it is not binding upon the courts, but in many cases, as gentlemen who are familiar with the legal aspects of the matter know, the declaration of the legislative body in regard to the purpose of the legislation goes very far with the courts in determining whether or not it is constitutional.

Mr. Walsh: Mr. Chairman, will the gentleman yield?

Mr. Towner: Yes.

Mr. Walsh: Will not this add to the allegations that must be set forth in the indictment and proved?

Mr. Towner: I do not know. I do not know, really, as to whether an indictment could be sustained against one who has violated the terms of the act without such allegation, but certainly it will suggest to the district attorney who is drawing the indictment that he should add this declaration. In any event none of these propositions is harmful, and they may be very important, and as such it seems to me that we are justified in asking for the approval of the amendment by the committee.

Mr. Hardy of Texas: Mr. Chairman, will the gentleman yield?

Mr. Towner: Yes.

Mr. Hardy of Texas: Does the gentleman think that the recital of this alleged fact that this material is deleterious would establish it as final? In other words, does the legislative declaration make that a fact?

Mr. Towner: If the gentleman had been listening attentively, he would have remembered that I just said it would not be binding upon the courts. It is, however, persuasive. It indicates the purpose and object of the legislation, and if in any case it is found as a matter of fact that the particular article under investigation at that time is adulterated or is deleterious to health, or has been so marketed as to constitute a fraud upon the public, then it would be subject to regulation in interstate commerce.

Mr. Montague: Mr. Chairman, will the gentleman yield?

Mr. Towner: Yes.

Mr. Montague: As I caught the gentleman's amendment, of which I heartily approve, he undertakes to give the real reasons for the bill.

Mr. Towner: Yes; I think that might be properly stated of it.

Mr. Montague: In other words, that is the object and purpose of the bill.

Mr. Towner: Yes. It is to prevent an adulterated food from being sold; it is to prevent a deleterious food from being sold; it is to prevent a fraud upon the public.

Mr. Raker: Mr. Chairman, I move to strike out the last word. I am in favor of this amendment. With this amendment adopted, I am in favor of this bill. It cures the imperfections of the bill beyond all question. As the bill stood there was serious question upon its face whether or not it could be declared constitutional by the courts. This adds what ought to be added to this character of legislation. I call attention to the fact that the bill prohibits the addition of any fat other than milk fat, or provides that the addition of any fat other than milk fat would prohibit the article from being entered in interstate commerce. In the powdered, dried, or desiccated milk there may be a small percentage of fat added, other than milk fat, when, as a matter of fact, all of the substance of the milk that comes from the cow in evaporated milk is retained. A little fat may be added to preserve it in the can. Without this amendment that evaporated milk would be prohibited in interstate commerce under the bill, but with the amendment proposed by the gentleman from Iowa it must be proven, as it ought to be, that it is an adulteration, that it is deleterious for food purposes, or that it is a fraud upon the public.

Mr. Walsh: Mr. Chairman, will the gentleman yield?

Mr. Raker: Yes.

Mr. Walsh: Does that amendment not make the definition comport with the pure food law?

Mr. Raker: I think it does, as far as it goes, and it ought to.

Mr. Walsh: Then, if you make it comply with the pure food requirements, what is the necessity for the rest of the bill?

Mr. Raker: Why, they have not been enforcing such laws in this instance. It may be deleterious and would be thereby prohibited from sale in a State. It may be an adulteration and it might not be prohibited by the pure food law; because you retain in the milk all of the sustenance, and if you put in oil or any fat for the preservation on account of shipment, or on account of drying, and so forth, you would be pro-

hibited from exporting it or transporting it from one State to the other under the original bill. This amendment cures that evil, as it should be cured.

Mr. Walsh: Does the gentleman contend that the pure food law permits the sale of adulterated or deleterious substances in food?

Mr. Raker: I do not and did not. I made no such statement, nor one that any such inference could be drawn therefrom. An adulteration that is not injurious, not against the law, is what is now before the House.

Mr. Walsh: Whether it may not be deleterious or injurious to public health?

Mr. Raker: Oh, not at all. This would be adulteration if you put anything in it; the adulteration must be deleterious and injurious to health; must be against the pure food law.

Mr. Moore of Virginia: Will the gentleman yield?

The Chairman: The time of the gentleman has expired.

Mr. Raker: I ask that I may proceed for one minute.

The Chairman: Is there objection? [After a pause.] The Chair hears none.

Mr. Moore of Virginia: I suggest this as an answer to the question of the gentleman from Massachusetts, that under the pure food law the matter of what are or are not deleterious in the various foods is dealt with by regulation by the Department of Agriculture.

Mr. Raker: And specified.

Mr. Moore of Virginia: Now, we consider it necessary—those of us who favor this measure—to deal specifically with this subject, and I agree fully with the gentleman from California and with the gentleman from Iowa [Mr. Towner] that the statement of fact how to be incorporated in the bill will be most persuasive upon any court that comes to consider the constitutionality of this measure.

Mr. Raker: The amendment should be adopted. It will give this bill a real chance for its life later.

The Chairman: The time of the gentleman has expired.

Mr. Voigt: Mr. Chairman, the committee has no objection to this amendment, and I move that all debate upon this section and all amendments thereto be now closed.

The motion was agreed to.

The Chairman: The question is on the amendment offered by the gentleman from Iowa.

The question was taken, and the amendment was agreed to.
The Clerk read as follows:

Sec. 2. It shall be unlawful for any person to manufacture within any Territory or possession, or within the District of Columbia, or to ship or deliver for shipment in interstate or foreign commerce, any filled milk.

Mr. Wingo: Mr. Chairman, I move to strike out the section.

The Chairman: Did the gentleman offer a pro forma amendment or an actual amendment?

Mr. Wingo: An actual amendment.

The Chairman: The Clerk will report the amendment.

The Clerk read as follows:

Page 2, line 9, strike out all of section 2.

Mr. Wingo: Mr. Chairman, now this section would make it unlawful to ship filled milk for any purpose, whether it is intended to feed hogs, man, or what not, across State lines—or feed poodle dogs, as some gentlemen here suggest, but I am not much interested in poodle dogs. In other words, the taking of it across the State line into the city of Texarkana for a dairyman on the edge of Texarkana to feed the hogs or any other purpose is made unlawful. But I feel fully satisfied if you want to prevent a fraud upon the public, you have already made a stump speech in the amendment already adopted, showing Congress is in favor of the present law against fraud, because you have got plenty of [fol. 464] laws necessary to punish every fraud that has been complained of here this afternoon, as every lawyer knows. Now, having gone on record and made a stump speech in favor of the enforcement of the present law, you ought to be satisfied without preventing the bringing of filled milk simply across the State line into Texarkana, or from Arkansas into Memphis, or from Memphis into Arkansas, or from Kansas City, Kans., to Kansas City, Mo.

In other words, you say that you are going to prevent its shipment for any purpose and make it unlawful for any purpose. Of course, that is absurd. I am glad you saw fit to tone down your preceding section by making the simple declaration of what you are in favor of; but I hope you will not go so far as to bar the shipment of a food product that may be properly used by men and, not as some one is so afraid of, by babies. Why, the lady from Oklahoma would be

barred from shipping in interstate commerce any of this stuff to be used by her in making custard.

Mr. Baker: Do you think it is just exactly the proper thing to give me any custard pie without any substance to it except the form and looks?

Mr. Wingo: I would not give you any custard pie at all; but if I should give you sawdust and told you it was food, and you did not have any more sense than to eat it, I ought not to be prosecuted; but if you were an infant and I sold you sawdust to eat, I ought to be prosecuted. Under the statute of California you could prosecute me if I sold you sawdust for breakfast food. Anyway, let the lady from Oklahoma still use the filled milk for custard, even if you do not want to use it for any other purpose. [Laughter.]

Mr. Voigt: Mr. Chairman, I want to say a few words in opposition to this amendment. If the gentleman has the privilege of shipping milk in interstate commerce for the purpose of feeding hogs or anything else, all that would be necessary under this bill would be to color the filled milk. Then you would not violate this law. If the section as it stands now is stricken out, the bill will be killed, and I hope it will be voted down.

I move that all debate on this amendment and amendments thereto be now closed.

The Chairman: The question is on the motion of the gentleman from Wisconsin [Mr. Voigt].

The question was taken, and the Chair announced that the ayes seemed to have it.

Mr. Wingo: Mr. Chairman, I ask for a division.

The committee divided, and there were—ayes 82, noes 20.

So the motion was agreed to.

The Chairman: The question is on the amendment offered by the gentleman from Arkansas [Mr. Wingo].

Mr. Jones of Texas: Mr. Chairman, the pending amendment is an amendment to strike out the paragraph. Would not the amendment offered a while ago take precedence of it in voting?

The Chairman: That has already been voted on—the amendment offered by the gentleman from Iowa [Mr. Towner].

The question now is on the amendment offered by the gentleman from Arkansas.

Mr. Jones of Texas: Before the vote is taken on that amendment, can the other amendment be considered?

The Chairman: What other amendment?

Mr. Jones of Texas: I have an amendment pending.

Mr. Campbell of Kansas: The amendment could be presented and not be debated.

Mr. Jones of Texas: According to the ruling heretofore made by the Chair, a motion to perfect a paragraph comes before a motion to strike out the paragraph, but after the motion to strike out the paragraph I am afraid the amendment would not be admitted.

The Chairman: When the gentleman from Texas had the amendment read for information he did not intimate that he offered the amendment for consideration.

Mr. Jones of Texas: I desire to offer it now.

The Chairman: The gentleman has the right to do so. The Clerk will report the amendment.

The Clerk read as follows:

Amendment offered by Mr. Jones of Texas: Page 2, line 11, after the word "shipment," strike out the word "in," and in line 12 strike out the word "interstate or foreign commerce" and insert, after the word "milk," the following: "to any person in any other State, Territory, or District of the United States or foreign country in which it is at that time unlawful to sell, offer for sale, or tender for sale, or delivery, such milk," so that section 2, as amended, shall read: "It shall be unlawful for any person to manufacture within any Territory or possession, or within the District of Columbia, or to ship, or deliver for shipment, any filled milk to any person in any other State, Territory, or District of the United States or foreign country in which it is at that time unlawful to sell, offer for sale, or tender for sale, or delivery, such milk."

The Chairman: The question is on the amendment offered by the gentleman from Texas [Mr. Jones].

The question was taken, and the amendment was rejected.

The Chairman: The question now comes on the amendment offered by the gentleman from Arkansas [Mr. Wingo].

The question was taken, and the amendment was rejected.

The Chairman: The Clerk will read.

Mr. Tucker: Mr. Chairman——

The Chairman: For what purpose does the gentleman rise?

Mr. Tucker: To ask about the amendment I offered a moment ago.

The Chairman: The amendment was read for information. Does the gentleman desire to offer it?

Mr. Tucker: I do.

The Chairman: The Clerk will report the amendment.

The Clerk read as follows:

Amendment by Mr. Tucker: Page 2, line 11, strike out the words "or to ship or deliver for shipment in interstate or foreign commerce."

The Chairman: The question is on the amendment offered by the gentleman from Virginia.

The amendment was rejected.

The Clerk read as follows:

SEC. 3. Any person violating any provision of this act shall upon conviction thereof be subject to a fine of not more than $1,000 or imprisonment for not more than one year, or both; except that no penalty shall be enforced for any such violation occurring within 30 days after this act becomes law. When construing and enforcing the provisions of this act, the act, omission, or failure of any person acting for or employed by any individual, partnership, corporation, or association, within the scope of his employment or office, shall in every case be deemed the act, omission, or failure of such individual, partnership, corporation, or association, as well as of such person.

Mr. Ward of North Carolina: Mr. Chairman, I move to strike out the last word.

The Chairman: The gentleman from North Carolina moves to strike out the last word.

Mr. Ward of North Carolina: Mr. Chairman, the district attorney that draws a bill of indictment under this law, and does not incorporate in that bill of indictment the Towner amendment, will have his bill of indictment quashed if there is a lawyer there and a judge on the bench; and when he puts it into his bill of indictment it has got to be proved, and unless he proves it the defendant will be acquitted, as he ought to be. [Applause.]

Mr. London: Mr. Chairman, I offer an amendment.

The Chairman: The gentleman from New York offers an amendment, which the Clerk will report.

The Clerk read as follows:

Amendment offered by Mr. London: Add a new section, which shall read:

"Sec. 4. This act shall take effect one year after the date of its passage."

Mr. London: Mr. Chairman, I favor this bill. Adulteration of food is one of the worst manifestations of modern commercialism. The ease with which the producers of these spurious articles deceive the unwary makes this legislation necessary. As the most conservative Member of the House, I want to advise you against confiscation. [Laughter.]

I do not believe in spasms of morality. I prefer continuous moral conduct. You have permitted the manufacture of these numerous articles, samples of which have been shown here. You have permitted them in interstate commerce. Investments have been made. Men are employed in these industries. Some regard, some consideration, should be given to them and an opportunity offered to adjust themselves to the new situation which will be created by the legal declaration that these articles shall henceforth be held to be immoral, injurious, unwholesome, deleterious, and what not.

I ask that my amendment be approved. [Applause.]

The Chairman: The question is on agreeing to the amendment offered by the gentleman from New York.

The question was taken, and the amendment was rejected.

Mr. Voigt: Mr. Chairman, I move that the committee do now rise and report the bill back to the House with an amendment, with the recommendation that the amendment be agreed to and that the bill as amended do pass.

The motion was agreed to.

Accordingly the committee rose; and the Speaker having resumed the chair, Mr. Hicks, Chairman of the Committee of the Whole House on the state of the Union, reported that that committee, having had under consideration the bill (H. R. 8086) to prohibit the shipment of filled milk in interstate or foreign commerce, had directed him to report the same back to the House with an amendment, with the recommendation that the amendment be agreed to and that the bill as amend[illegible] do pass.

[fol. 465] Mr. Voigt: Mr. Speaker, I move the previous question on the bill and amendment to final passage.

The previous question was ordered.

The Speaker: The question is on agreeing to the amendment.

The amendment was agreed to.

The Speaker: The question is on the engrossment and third reading of the bill.

The bill was ordered to be engrossed and read a third time.

Mr. Walsh: Mr. Speaker, I ask for the reading of the engrossed bill.

Mr. Mondell: Mr. Speaker, I move that the House do now adjourn.

The Speaker: Will the gentleman from Wyoming withhold his motion for a moment?

Mr. Mondell: Yes.

[fol. 466] FILLED MILK

The Speaker: The unfinished business is the bill H. R. 8086, the filled milk bill. The gentleman from Massachusetts calls for the reading of the engrossed copy. Does the gentleman still desire the reading of the engrossed copy?

Mr. Walsh: I do.

The Clerk read the engrossed copy of the bill.

The Speaker: The question is on the passage of the bill.

The question was taken, and on a division (demanded by Mr. Blanton) there were 85 ayes and 12 noes.

Mr. Blanton: Mr. Speaker, I object to the vote because there is no quorum present, and I make the point that no quorum is present.

The Speaker: The gentleman from Texas makes the point that no quorum is present. The Doorkeeper will close the doors, the Sergeant at Arms will notify the absentees, and the Clerk will call the roll.

The question was taken; and there were—yeas 250, nays 40, answered "present" 1, not voting 140, as follows:

YEAS—250

Almon	Barbour
Anderson	Beedy
Andrews, Nebr.	Begg
Ansorge	Benham
Anthony	Bird
Appleby	Bixler
Bacharach	Black

Blakeney
Bland, Va.
Blanton
Bowers
Bowling
Box
Brennan
Briggs
Brooks, Ill.
Brown, Tenn.
Browne, Wis.
Bulwinkle
Burdick
Burroughs
Burtness
Burton
Butler
Byrns, Tenn.
Cable
Campbell, Kans.
Campbell, Pa.
Cannon
Cantrill
Carew
Chalmers
Chindblom
Christopherson
Clague
Clarke, N. Y.
Clouse
Codd
Cole, Ohio
Colton
Connally, Tex.
Connolly, Pa.
Cooper, Wis.
Curry
Dallinger
Darrow
Davis, Tenn.
Doughton
Dowell
Drewry
Dunn
Dupré
Dyer
Fairchild
Fairfield
Faust
Favrot
Fenn
Fish
Fisher
Fitzgerald
Foster
Freeman
Fuller
Fulmer
Funk
Gahn
Garner
Garrett, Tex.
Gensman
Gernerd
Gilbert
Glynn
Goldsborough
Graham, Ill.
Graham, Pa.
Green, Iowa
Greene, Mass.
Greene, Vt.
Griest
Hadley
Hardy, Colo.
Harrison
Haugen
Hawes
Hawley
Hays
Henry
Herrick
Hersey
Hickey
Hicks
Hill

YEAS—250—Continued

Hoch
Huddleston
Hukriede
Hull
Humphreys
Husted
Hutchinson
James
Jeffers, Ala.
Johnson, Ky.
Johnson, S. Dak.
Jones, Tex.
[fol. 467]
Kearns
Keller
Kelley, Pa.
Ketcham
Kiess
Kincheloe
King
Kirkpatrick
Kissel
Kleczka
Kline, N. Y.
Kline, Pa.
Knutson
Kopp
Lampert
Lanham
Larsen, Ga.
Larson, Minn.
Lawrence
Lea, Calif.
Lee, Ga.
Lee, N. Y.
Lehlbach
Linberger
Little
London
Longworth
Lyon
McClintic
McCormick
McKenzie
McLaughlin, Mich.
McLaughlin, Nebr.
MacGregor
Madden
Magee
Mapes
Martin
Mead
Merritt
Michener
Miller
Millspaugh
Mondell
Montague
Montoya
Moore, Va.
Morgan
Mott
Nelson, Me.
Newton, Minn.
Nolan
O'Connor
Ogden
Oliver
Olpp
Osborne
Overstreet
Padgett
Parker, N. Y.
Patterson, Mo.
Patterson, N. J.
Perkins
Petersen
Porter
Pou
Pringey
Purnell
Quin
Radcliffe
Raker

Ramseyer
Ransley
Reece
Reed, W. Va.
Rhodes
Ricketts
Riddick
Roach
Robertson
Robsion
Rose
Rosenbloom
Rossdale
Rucker
Sanders, N. Y.
Sanders, Tex.
Sandlin
Schall
Scott, Mich.
Scott, Tenn.
Shaw
Shelton
Shreve
Sinclair
Sinnott
Smith, Idaho
Smith, Mich.
Snell
Speaks
Sproul
Steagall
Stedman
Steenerson
Stephens
Strong, Kans.
Summers, Wash.
Sumners, Tex.
Swank
Swing
Temple
Ten Eyck
Thompson
Timberlake
Tincher
Towner
Vinson
Voigt
Volstead
Walsh
Walters
Ward, N. Y.
Watson
Weaver
Webster
Wheeler
White, Kans.
White, Me.
Williams, Ill.
Williamson
Winslow
Woodruff
Woods, Va.
Woodyard
Wurzbach
Wyant
Yates
Young

NAYS—40

Aswell
Bell
Buchanan
Byrnes, S. C.
Collier
Crisp
Deal
Dominick
Echols
Hammer
Hardy, Tex.
Jacoway
Johnson, Miss.
Lankford
Lazaro
Logan

NAYS—40—Continued

Lowrey	Sisson
Luce	Stevenson
McDuffie	Thomas
McSwain	Tillman
Moores, Ind.	Tyson
Newton, Mo.	Underhill
Norton	Ward, N. C.
Parker, N. J.	Williams, Tex.
Parks, Ark.	Wilson
Rankin	Wingo
Rayburn	Wise
Sabath	Wright

ANSWERED "PRESENT"—1

Tucker

NOT VOTING—140

Ackerman	Coughlin
Andrew, Mass.	Crago
Arentz	Cramton
Atkeson	Crowther
Bankhead	Cullen
Barkley	Dale
Beck	Davis, Minn.
Bland, Ind.	Dempsey
Boies	Denison
Bond	Dickinson
Brand	Drane
Britten	Driver
Brooks, Pa.	Dunbar
Burke	Edmonds
Carter	Elliott
Chandler, N. Y.	Ellis
Chandler, Okla.	Evans
Clark, Fla.	Fess
Classon	Fields
Cockran	Focht
Cole, Iowa	Fordney
Collins	Frear
Connell	Free
Cooper, Ohio	French
Copley	Frothingham

Gallivan
Garrett, Tenn.
Goodykoontz
Gorman
Gould
Griffin
Hayden
Himes
Hogan
Hooker
Hudspeth
Ireland
Jefferis, Nebr.
Johnson, Wash.
Jones, Pa.
Kahn
Kelley, Mich.
Kendall
Kennedy
Kindred
Kincaid
Kitchin
Knight
Kraus
Kreider
Kunz
Langley
Layton
Leatherwood
Linthicum
Luhring
McArthur
McFadden
McLaughlin, Pa.
McPherson
Maloney
Mann
Mansfield
Michaelson
Mills
Moore, Ill.
Moore, Ohio
Morin
Mudd
Murphy
Nelson, A. P.
Nelson, J. M.
O'Brien
Oldfield
Paige
Park, Ga.
Perlman
Rainey, Ala.
Rainey, Ill.
Reavis
Reber
Reed, N. Y.
Riordan
Rodenberg
Rogers
Rouse
Ryan
Sanders, Ind.
Sears
Siegel
Slemp
Smithwick
Snyder
Stafford
Stiness
Stoll
Strong, Pa.
Sullivan
Sweet
Tague
Taylor, Ark.
Taylor, Colo.
Taylor, N. J.
Taylor, Tenn.
Tilson
Tinkham
Treadway
Upshaw
Vaile
Vare
Vestal
Volk
Wason
Wood, Ind.
Zihlman

So the bill was passed.

The following pairs were announced:

On this vote:

Mr. Hooker (for) with Mr. Tucker (against).

Mr. Rouse (for) with Mr. Brand (against).

Mr. A. P. Nelson (for) with Mr. Bankhead (against).

Mr. Cullen (for) with Mr. Rainey of Illinois (against).

General pairs:

Mr. Chandler of New York with Mr. Garrett of Tennessee.

Mr. Treadway with Mr. Cockran.

Mr. Langley with Mr. Clark of Florida.

Mr. Evans with Mr. Gallivan.

Mr. Connell with Mr. Kitchin.

Mr. Moore of Illinois with Mr. O'Brien.

Mr. Cooper of Ohio with Mr. Oldfield.

Mr. Coughlin with Mr. Fields.

Mr. Cranton with Mr. Carter.

Mr. Johnson of Washington with Mr. Sears.

Mr. Murphy with Mr. Riordan.

Mr. Kelley of Michigan with Mr. Ward of North Carolina.

Mr. Wason with Mr. Mansfield.

Mr. Kendall with Mr. Griffin.

Mr. Perlman with Mr. Drane.

Mr. Moore of Ohio with Mr. Tague.

Mr. Atkeson with Mr. Kindred.

Mr. Frothingham with Mr. Linthicum.

Mr. Ackerman with Mr. Park of Georgia.

Mr. Goodykoontz with Mr. Smithwick.

Mr. Dickinson with Mr. Barkley.

Mr. Knight with Mr. Stoll.

Mr. Reed of New York with Mr. Collins.

Mr. Beck with Mr. Driver.

Mr. Paige with Mr. Sullivan.

Mr. Bland of Indiana with Mr. Hayden.

Mr. Fess with Mr. Kunz.

Mr. Siegel with Mr. Taylor of Arkansas.

Mr. Bond with Mr. Hudspeth.

Mr. Snyder with Mr. Upshaw.

Mr. McFadden with Mr. Taylor of Colorado.

Mr. French with Mr. Rainey of Alabama.

Mr. Tucker: Mr. Speaker, I voted "no," but I find I am paired with my colleague, Mr. Hooker. I therefore withdraw my vote and answer "present."

Mr. Rossdale: Mr. Speaker, my colleague, Mr. Perlman, was called away on pressing business. If he were here, he would vote "aye."

Mr. Clarke of New York: Mr. Speaker, I am requested by my colleague, Mr. Reed of New York, to say that if he were present he would vote "aye."

Mr. Mapes: Mr. Speaker, my colleague, Mr. Cramton, authorized me to say that if he were here he would vote "aye."

The result of the vote was announced as above recorded.

On motion of Mr. Voigt, a motion to reconsider the vote whereby the bill was passed was laid on the table.

[fol. 468] ENROLLED BILLS SIGNED

Mr. Ricketts, from the Committee on Enrolled Bills, reported that they had examined and found truly enrolled bills of the following titles, when the Speaker signed the same:

H. R. 8086. An act to prohibit the shipment of filled milk in interstate or foreign commerce;

[fol. 469]

ENROLLED BILLS PRESENTED TO THE PRESIDENT FOR HIS APPROVAL.

H. R. 8086. An act to prohibit the shipment of filled milk in interstate or foreign commerce;

[fol. 470]

MESSAGE FROM THE PRESIDENT OF THE UNITED STATES

A message in writing from the President of the United States by Mr. Latta, one of his secretaries, who also informed the House of Representatives that the President had approved and signed bills and joint resolutions of the following titles:

[fol. 471] H. R. 8086. An act to prohibit the shipment of filled milk in interstate or foreign commerce;

[fol. 472] DEFENDANTS' EXHIBIT 26-B
(FOR IDENTIFICATION)

Filled Milk

Hearings
Before A
Subcommittee of the
Committee on Agriculture and Forestry
United States Congress, Senate
Sixty-Seventh Congress

Second Session
on
H. R. 8086

To Prohibit the Shipment of Filled Milk
In Interstate or Foreign Commerce

Printed for the use of the Committee on Agriculture
And Forestry

[fol. 473]

Filled Milk

Friday, June 30, 1932.

UNITED STATES SENATE,

SUBCOMMITTEE OF THE COMMITTLE ON AGRICULTURE
AND FORESTRY,

Washington, D. C.

The subcommittee met, pursuant to call, at 10.30 o'clock a. m., in room 224, Senate Office Building, Senator McKinley presiding.

Present: Senators McKinley (chairman, Ladd, and Kendrick.

Senator McKinley: The committee will come to order. I will ask the reporter to put in the record at this point the bill we are considering.

The bill referred to is here printed in full, as follows:)